

PRESENT-DAY IMPRESSIONS OF JAPAN





HIS IMPERIAL MAJESTY, YOSHIHITO, EMPEROR OF JAPAN



HER IMPERIAL MAJESTY, EMPRESS SADAHO



Present Day Impressions
OF

JAPAN

The HISTORY, PEOPLE, COMMERCE,
INDUSTRIES and RESOURCES OF

JAPAN

AND

JAPANS COLONIAL EMPIRE
KWANTUNG, CHOSEN
TAIWAN KARAFUTO

Compiler

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The GLOBE ENCYCLOPEDIA

· 301 EAST STREET · LONDON ·
CHICAGO YOKOHAMA SHANGHAI
SAIGON SINGAPORE & BATAVIA

1919

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PREFACE

A CLEAR and unbiassed presentation of those facts which will enable the reader to choose a safe way amidst the shoals of conflicting rumour and report, and read correctly those signs of the times indicative of Japan's potential future. Such is the useful object of this compilation.

To that end every article has been contributed by an expert, each a keen student of Japan who has spent many years in the country, and who, guided by our policy, avoids on the one hand that laudatory note so characteristic of the official or subsidised publication, and on the other that too heavy and erudite style so much more effective as an inducement to sleep than as a medium of information.

We have dealt with tables of statistics only where absolutely necessary, under the impression that the business man whom this book will chiefly interest, prefers information presented in the most assimilable form, as opposed to the befogging diagram and the formidable array of figures.

Our statistics, too, are mainly comparative of the pre-war years with 1916 and 1917, from which, by choosing the happy medium and making due allowance for the great progress we outline on every hand, one may arrive at some understanding of what the normal development will probably be during the period of reconstruction.

The descriptions of commercial enterprises are, we think, no more appreciative than they ought to be, inasmuch as it is our good fortune to be able to present perhaps the most lengthy and truly representative list of reputable and (in many cases) notable houses that has ever been included in a book of this description on Japan.

The commercial illustrations we regard as quite the most interesting feature of the compilation; indeed, we have spared neither effort nor expense to make them so. What can be more interesting to the busy man who is already either connected with the country, contemplates business, or wishes merely to acquaint himself with the actual situation than the pictorial presentation of the conditions under which the merchant in Japan operates; of the power, transportation, labour, machinery, and other facilities at his command?

By the use of illustrations of a different nature, presenting the elementary or historical stages of the various industries; by the utilisation of tints varying with the subjects and the interpolation of attractive colour pages throughout, we have endeavoured to introduce sufficient variety to maintain the interest of the reader from cover to cover.

In the arrangement of the subjects we have kept in view the same object, that of affording relief and contrast. Information relative to any enterprise will be found in connection with the city in which the concern is located, and, in addition thereto, some local colour which may serve for further enlightenment.

It is an important part of our policy not to accept a Government subsidy, nor have we relied to any degree upon Government departments for information. The book is in consequence entirely free from that bias so characteristic of the official publication, and, apart from the occasional error into which even an expert may fall, the information conveyed can be relied upon.

P R E F A C E — *Continued*

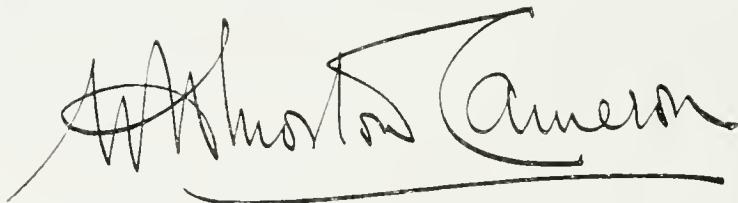
To all import and export merchants and manufacturers who are interested in any part of the Far East, and to business men generally, we believe that this volume not only has a message, but a significant message which each will have little difficulty in interpreting for himself. That all-important question "What place will Japan occupy in the future markets of the world?" may perchance be answered through the medium of these pages.

We have had no choice but to make enthusiastic reference from time to time to what has been accomplished, but it is far from our intention to convey the impression that Japan is prepared to rest on her laurels. The Japanese business man has been so long accustomed to look abroad, to make it his definite duty to study overseas business methods, etc., and adapt them to his purpose, that he cannot quietly view matters with complacency. He doubtless looks with pride on local developments, but his satisfaction is ever qualified by comparison with what is being done abroad.

In this connection, the writer, in conversation with a prominent member of the "Megata" economic mission to the United States (1917), referred to the great development in Japan's industries since the war, and was surprised to hear that gentleman rather depreciatingly compare America and Japan commercially and industrially to the disadvantage of the latter.

Such a comparison is manifestly unfair, but it was not the foreigner, who is usually much impressed, who made it, but a prominent representative of the younger business men of Japan, already highly placed, whose utterance may be taken as significant of what the future leaders of the country are thinking to-day, and valuable as a gauge to their ambitions.

At the conclusion of our work, despite every effort to achieve the best, we could wish the book to be much better still, but trust that those who are inclined to criticise it adversely will stop a moment to consider what, after all, has been accomplished.

A large, stylized handwritten signature in black ink. The signature appears to read "Morton Cameron". The letters are fluid and connected, with a prominent flourish at the end of the last name.

Compiler.

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FUJI-SAN AT DAWN

I. THE IMPERIAL FAMILY OF JAPAN

FOUNDATION OF THE EMPIRE—THE EMPEROR—THE IMPERIAL CONSTITUTION—THE LATE EMPEROR MUTSUHITO—THE EMPEROR YOSHIHITO—THE PRINCELY FAMILIES

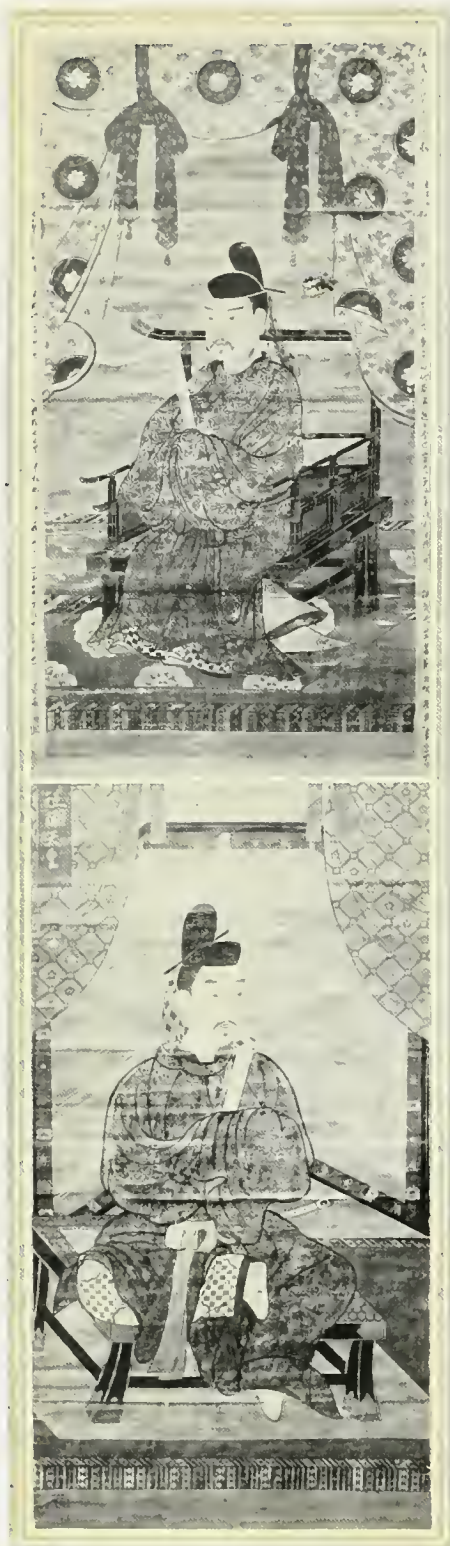
ACCORDING to Japanese history the Empire has maintained perfect independence since its foundation more than 2,500 years ago; and the present Emperor, Yoshihito, is the 122nd sovereign in the imperial line who has occupied the throne in unbroken succession since its establishment. It must be remembered, however, that competent scholars can not carry the authentic history of Japan farther back than about half way over the course ascribed to it in local annals, as no reliance can be placed on any date or report of Japanese tradition prior to the opening of the fifth century A. D. The Japanese Empire was no doubt founded at a very remote period, and most probably there was some substantial basis for the long-established tradition; but the glimpses of the country and its people obtained through contemporary Korean and Chinese records disclose, not an organised and peaceful state of society in Japan, but segregated clans or tribes practically illiterate and barbarous, the southern elements leading, with prospects

of becoming sovereign. Thus the formal establishment of the Japanese Empire cannot be dated beyond the Christian era. From the time that the capital was established at Yamato in the early Christian era until the present day, there is no doubt that the Imperial House has reigned in unbroken succession, though at times there were rebellions and a divided dynasty, with the ruler in exile; and sometimes the succession had to be kept up by adoption.

THE EMPEROR

ACCORDING to the Japanese system of government the Emperor is the head and centre of the organisation of the Empire. The distinction between sovereign and subject is vital and permanent, and has been definitely fixed since the establishment of the imperial throne; from which time it has been fully accepted that the sovereign is sacred and his person inviolable, an attitude never relaxed in spite of even modern ideas. The Japanese maintain these propositions notwithstanding that, as already mentioned, in

the nation's history we see emperors seized and banished, being left to die in exile. On the whole, however, the tenet that the Emperor is sacred has been observed; obedience to him has been absolute and he has been and is treated as a god incarnate on the earth, representing the divine ancestors. The religion of Japan is simply ancestor worship; and the Emperor rules not in his own right but as the representative of the Imperial Ancestors. Japan is veritably a theocracy ruled by gods innumerable. The Imperial Ancestors are worshipped, not because they are the ancestors of the present sovereign, but because they are the sovereigns of the ancestors of the Japanese people. To some this might seem like the essence of self-worship; and when one looks at a Shinto shrine and finds the chief object on the altar is a mirror, the assumption might seem to receive confirmation. But the whole thing is very human. Man naturally turns with awe and reverence to his creator, which by the logic of his religion must extend back to the Heavenly Father. The Empire of Japan is



THE EMPEROR KAMMU, ONE OF THE EARLY RULERS OF JAPAN—THE EMPEROR DAIGO. BOTH FROM PAINTINGS IN THE IMPERIAL MUSEUM, TOKYO

one great family of which the Emperor is the father and head, the representative of heaven and earth. Indeed, Japanese views of deity and of the Imperial Family would make the Almighty a Japanese, just as the ideas of some of the ancient Hebrews would make

God a Jew and the Jews alone his chosen ones or children. The Japanese claim that the rule of their Emperor has been divine and that history affords no instance of fallibility; no Emperor has ever ruled despotically or arbitrarily, but always as the divine father of his people. As the rulers have always shown the greatest consideration for the people, the people have always evinced the utmost loyalty and respect for the sovereign.

It is, of course, very difficult for an Occidental mind to appreciate fully just what is the relation between the Japanese people and the Imperial House. It is doubtless the most intimate possible for the human mind to conceive. To say that the Japanese believe in the divine right of rulers is to put the case much too mildly. To convey to a Western mind any adequate conception of the place occupied by the Emperor of Japan in the hearts of his subjects and the degree of reverential awe with which he continues to be invested, even in these materialistic times, is no easy thing to attempt in mere words. One has to live in the midst of this mystic loyalty and breathe its atmosphere for years to realise what it means. The Emperor of Japan is not only the vicegerent of the ancestral gods on earth, but is himself a god by virtue of his divine descent, a god who rules, guides, guards, and keeps his people with unbounded compassion and infallible wisdom, a task possible only to one who has inherited the attributes of omnipotent and benevolent ancestors in heaven. To the people of Japan the Emperor is just as much a god as Christ is to the Christians; and with far more immediate and practical powers. There is no other potentate on earth who receives such veneration and service as the ruler of Japan. He is to them their heavenly father, present with them on earth to share their joys and sorrows, and to whose support all achievement is due. Such a view of deity no doubt comes as a shock to the pious-minded Occidental; but the Japanese seem to regard it as far more rational than the Western notion of deity. If it be objected that the Japanese view of faith and loyalty assumes too much of mortals, it will be replied that the Emperor is just as much a heavenly father to his people as Jehovah is to the European. The Occidental can not claim that his god has done more for him and his country than the divine ruler of Japan has done for his country and people. The religious people of Europe say that they are the children of their Heavenly Father; they claim the Almighty as their first ancestor. If man is the child of God he is of divine descent and can be a god. The Japanese go farther and insist

that the divine succession has never been broken and that they are still connected with the original creator through their divine ruler on earth. Such, at least, is the conception of deity and sovereignty that the European must be able to grasp before he can appreciate what the Emperor of Japan is to the nation.

In the ancient days the emperors of Japan, as the descendants of the ancestral



IMAGE OF THE EMPRESS JINGO-KOGO. COLOURED WOOD, 1 FOOT 2 INCHES IN HEIGHT. EARLY FUJIWARA PERIOD (888-1068 A. D.), OWNED BY YAKUSHI-JI, A TEMPLE IN NARA-KEN

gods, themselves administered the affairs of state. As time went on the divine ruler began to rule more and more through his agents. First there was the Fujiwara family which attained to martial fame and consequent great influence at the Imperial Court, and from which the imperial consorts have ever since been selected. Later the political power passed into the control of great military clans like the Taira and the Minamoto, and finally to the shoguns. If it be suggested that this seems like a usurpation of imperial prerogative, it may be replied that it is no more so than in those European countries which hold the divine right of kings yet entrust their administration to governments authorised by the sovereign. Even in the Church, God is said to rule through regularly commissioned officers, of which system the Papacy is, perhaps, the best example. But no occupant of the papal chair was ever believed so infallible as the Emperor of Japan. The great clans and latterly the shoguns did not make themselves more independent of imperial rule than the Pope of Rome has often done of the Almighty. The military clans respected



HER LATE MAJESTY THE EMPRESS DOWAGER SHOKEN



THE LATE EMPEROR MEIJI TENNO

the Imperial Court and observed the administrative power in such form as was entrusted to them by the Emperor, and in the exercise of their power there existed a formality transmitted by the court. A time arrived, however, when the people preferred to have the direct rule of the divine ruler. Like the Reformation in Europe, the Restoration in Japan was a reversion from indirect to direct relation with the divine head. With the Restoration of imperial rule the statecraft that came between the Emperor and his people was done away with, a change as great and as vital as the abolition of priestcraft in the reformed churches of Europe. With the central power presiding over all public affairs there was reestablished that direct relationship between the ruler and people that existed at the foundation of the Empire.

Those able to appreciate the force of what has been said may be able to understand what is meant by the claim that, in spite of rebels and exiled emperors, the Japanese have always been loyal to the Imperial House, and that never once through the long history of the country has the supreme authority of the Emperor been questioned. Even the most arrogant of Japanese rebels would not

have admitted that he was up in arms against the Emperor. Rebellions were always against bad officials who were accused of abusing the imperial power entrusted to them. If it be asked why this was not left to the Emperor, as being his concern chiefly, the answer might come that the followers of God do not leave the punishment of the enemies of heaven to divine interposition. Even during the centuries when the Emperors of Japan would seem to have been reduced to political and administrative impotence by successive dynasties of military usurpers, they still remained theoretically the final source of all executive authority and the sole fountain of honour. No act, not even of the most powerful and arbitrary regent, backed though it might be by irresistible military strength and efficiency, was valid unless he was fortified by the commission of the Emperor, who himself had not a single soldier to enforce his commands. Military leaders who held the commission were always loyalists, though they might overturn all existing government. Those without the imperial commission were always rebels, though they held the reins of government in their own hands. Thus it will be seen that the Japanese do not regard the Emperor as

any the less divine or infallible or omnipotent because his will has not always been obeyed, any more than religious people in the West regard ungodliness as a reflection on the Deity. After a divine manner the Emperors of Japan have left the people to choose for themselves whom they would serve, and for the most part the people have responded to the trust.

THE IMPERIAL CONSTITUTION

WITH the restoration of direct relations between sovereign and people a constitution was granted, not creating any new principle or policy, but stating and defining the divine principles that had regulated the relations of sovereign and people from the beginning. As Japanese history was affirmed to afford no instance of imperial tyranny or oppression of the people, the portion of the constitution relating to the Imperial House was formed on a basis of great elasticity; while all that referred to the rights and duties of the people was embodied in coded laws. Unlike the constitutions of other countries that of Japan is a divine covenant, not the result of coercion nor accorded as a right, but simply as a voluntary gift and blessing from the divine ruler to his people. By the

terms of the Imperial Constitution the imperial power remained as before, or strengthened rather than impaired; while rights of honour, liberty, life, property, and religion were freely bestowed on the people. The Emperor exercised his administrative power through the two Estates of the Realm, the Peers and the Commoners, both vested with extensive powers, but both of which ever bow to the imperial will, however much among themselves they may be given to division and disputation.

The name usually given to the Emperor is *Tenno Heika*, or Divine Ruler. The designation *Mikado*, or August Door, is seldom used except among foreigners, though when it is spoken it shows the reluctance felt by the Japanese in using the imperial name. The title *Kotei*, a Chinese word, meaning King of Kings, is sometimes used; while *Kinri*, *Dairi*, and *Chutei* all describe the palace and are intended to signify the Emperor personally, as we do when we say "the bench" instead of "the judge." *Tenno*, however, is the title by which the ruler of Japan is most commonly known among his people, and also *Tenshi*, both implying his divine descent as well as his all-seeing wisdom and supreme authority. The Empress is referred to as *Kogo Heika*, or Imperial Consort.

THE LATE EMPEROR MUTSUHITO

THE late Emperor, Mutsuhito, was the first ruler for nearly a thousand years to come before the public and exercise direct rule over the people, former sovereigns carrying on the administration by proxy and themselves living in the most profound seclusion, the imperial feet never being allowed to touch the earth. During his rule



A MORE RECENT PHOTOGRAPH OF HIS LATE MAJESTY THE EMPEROR MEIJI TENNO

Japan became a modern state and attained the position of a first-class power in the comity of nations; all of which is ascribed to the virtues of the sovereign. When he ascended the throne in 1867 at the age of sixteen he found his country in the throes of rebirth from expiring feudalism. The nation was regarded by the powers of the world as an isolated and self-centred anachronism; but the young ruler, surrounding himself by the choicest spirits of his time, determined upon a thorough and radical reform. Out of the seclusion to which the shogunate had consigned him he emerged upon a plane of triumphant and enlightened rule, breaking the shackles of feudalism and setting the people free. He found his

country a nation of 30,000,000 ignorant and unhappy subjects; and after forty-five years of illustrious rule he left a vast Empire extended in territory and having more than 70,000,000 people. Well was his reign entitled the Meiji Period, the Age of Enlightenment; and after his demise the great Emperor was permanently given the posthumous designation of Meiji. The material, mental, and moral progress of Japan during the reign of the Emperor Meiji owed much to imperial solicitude and direction. The profound personal interest taken by the Emperor in the welfare of the people may be illustrated by one of the imperial poems, the late sovereign having been one of the greatest poets of the nation:

Teru ni tsuké
Kumoru ni tsuketé
Omou kana
Waga tamigusa no
Uye wa ikani to!

Whether it rain or shine
I have one only care;
The burden of this heart of mine
Is how my people fare!

Taller and more robust than the majority of his subjects, with dark complexion and pronounced features, the late Emperor always seemed grave and impassive, ever maintaining the austere dignity of one whose ancestry is of heaven. Seen by the present writer on various occasions, social and official, the same outward expression of grave dignity remained without change through many years. To all Japanese he appeared more like a god than a man. They took the keenest interest in every detail of his life, so far as the public was permitted such information. The late Emperor had many



THE APPROACH TO THE IMPERIAL PALACES, TOKYO

detached palaces, but he did not often occupy them, seldom taking a holiday, even in the heat of summer. He refused to complain of winter cold or summer heat, so long as the toiling multitudes of his Empire had to endure all weathers, this idea being expressed in one of the imperial poems. The Emperor always arose at six in the morning, bathed and had breakfast before seven, his food being the simplest. After satisfying his physician that he was physically fit for the day, the pure white habutai kimono was put off for the uniform of a generalissimo of the Imperial Guards. He insisted on this even in the heat because the army officers had to wear it. At ten the Emperor entered his study to receive official reports and papers. At one o'clock he took luncheon, usually native dishes, and then lay down until two. The afternoons were spent in the study or in riding. At six the Emperor dined with the Empress; and the evenings were spent in poetry together. At nine, the physician again appeared, and after massage the Emperor retired. His late Majesty's hobbies were poetry and gardening.

The late Empress, who, like her predecessors through so many centuries, belonged to the Fujiwara family, also traced her descent direct to the gods, as the Fujiwara were descendants of the Imperial House. She belonged to the Ichijo branch of the family and showed in every line of her features the refined and intellectual characteristics of those who trace unmixed descent from the highest nobility of old Japan, which are better preserved in the women than in the men. She was the first Empress to appear among the people and take part in public functions. The influence of the good Empress Haruko over the women of Japan was remarkable, especially in the way of education and charity. In Japanese history her name will shine no less brightly than that of her illustrious spouse, the Emperor Meiji, as an ideal of devotion and duty.

THE EMPEROR YOSHIHITO

THE present Emperor, Yoshihito, is the 122nd in the imperial line. He was born August 31, 1879, being the third son of the late Emperor. He was declared Imperial Crown Prince on November 3, 1889, and succeeded to the throne on July 30, 1912, at the moment of the demise of his father. The formal ceremony of public accession to the throne did not take place until November, 1914, owing to national mourning. On the 10th of May, 1900, while still Prince Imperial, he was married to the Princess Sadako, fourth daughter of Prince Kujo, born June 22, 1884, the results of the union being four sons.



H. I. H. CROWN PRINCE HIROHITO

The succession to the throne of Japan is regulated by the Imperial House Law, passed as supplementary to the Imperial Constitution in 1889 under the Emperor's sign-manual. It declares that "the Imperial Throne of Japan, enjoying the grace of heaven, and everlasting from ages eternal in unbroken line of succession, has been transmitted through successive reigns," and that while "the fundamental rules of the Imperial family were established, once and for all, when the foundations of the Empire were laid, and are even at this day as bright as the celestial luminaries," it was desired "to

establish a House Law for posterity by which the Imperial House should be founded in everlasting strength and its dignity forever maintained." This law provides for the succession to the throne by male descendants in the male line, by the imperial eldest son or the imperial eldest grandson, by younger sons of the Emperor in order of birth, failing an eldest son or grandson; by the Emperor's brother or his descendants or by his uncle or his descendants, or, failing these, by the nearest member of the imperial family. It is clear that in the above law two of the nation's most ancient customs were departed

from: empresses were excluded from the throne and the succession was limited to male descendants of absolute lineage. An empress or a princess is permitted to act as regent during the minority or permanent incapacity of the Emperor from illness, if there is no prince of age or capacity to undertake the duties. It is remarkable that women should be thus excluded from the throne, since some of the most illustrious sovereigns of old Japan were empresses. The male succession in direct line is now, however, well assured, as the present ruler is the son of the late Emperor, and has four sons, his two elder brothers having died in infancy.

The Emperor Yoshihito is the first really modern ruler that Japan has had, as he was educated in a modern way and has established his family and household on a modern basis. The former Emperor was brought up after the manner of old Japan; but the education and training of the new Emperor combine the best of the old with the best of the new and modern. At the age of eight he entered the primary department of the Peers' College, and passed through all the grades up to the high school with marked ability. As a youth he was somewhat delicate in constitution, but by persistence in care for his health and in outdoor life and activity the Emperor is now robust and hale. Upon leaving the Peers' College the Prince continued his education at the Aoyama Palace under private tutors. Up to the time of his accession to the throne the Imperial Prince gave most of his mornings to hearing special private lectures from eminent scholars and professors, showing a special aptitude for Chinese and Japanese classics. Of foreign languages he preferred French, in which he made some progress. From a professional point of view the young Emperor is a soldier, though he is an officer of the navy as well. While yet Crown Prince he used to take his seat in the House of Peers and show unabated interest in the affairs of state. Thus it may be said that the new Emperor of Japan has had a thoroughly modern education, attending the public school, mixing daily with companions selected for him, and making himself familiar with the duties of the high position he was destined to fill. On attaining manhood he neglected no opportunity of gaining further knowledge of his country and people, travelling to various parts of the Empire, even to Korea. During his trips inland he proved to be an excellent pedestrian and mountain climber, often outspeeding his companions and appearing unannounced among the rustic villages. The present writer, who has had the honour on more than one occasion of taking luncheon in the same



H. I. H. FIELD MARSHAL PRINCE SADANARU
FUSHIMINOMIYA

room with His Majesty when he was Crown Prince, noticed how genial he always was with those about him, as well as being modest and dignified in manner. It is said in Japan that once when the late Emperor and the Crown Prince were in conversation together, the father said to the son: "In the past those in high estate have shown themselves ignorant of those below them, and were often haughty and arrogant. I pray you let it not be so with you. At all times be ready to help yourself." This wise counsel the Prince always has carefully observed; and now that he sits on the throne of his illustrious father the young Emperor is ever solicitous of the welfare of his people. When officials are apt to be too officious in repressing the freedom of the public during imperial journeys, it is said the Emperor expresses a desire that his presence shall not delay traffic or interrupt public business longer than actually necessary. As a prince mixing among his companions he always endeared himself to them by his modest and unassuming ways; as a soldier he was distinguished for his careful observance of the military regulations, even joining the mess and partaking of the rough fare of the soldier, to the astonishment and admiration of the officers and men. Once during

manœuvres when a private was thrown from his horse and none of the officers appeared to notice it, treating it as an incident unworthy of attention, the Crown Prince leaped from his saddle and helped the fallen soldier to his feet, to the amazement of those standing by. When they expressed great awe at what he had done he replied: "I too am a soldier!" On another occasion he was taken out hunting and shot a stag. On seeing the beautiful animal lying dead before his camp the Prince wrote the following poem:

Omoshiroku
Uchi wa shitsuredo
Naku shika no
Koe kiku toki wa
Awaré nari kerī!

(For my own amusement
The fatal shot I fired;
But when I heard the doe's lament
The pleasure all expired!)

Thus the people of Japan look upon their young Emperor as not only brave and noble but benevolent and tender-hearted as well.

Her Majesty, the young Empress Sadako, reveals the same imperial qualities that make her a gracious ornament to the throne and a mother to her people. As a student at the Peeress' College she showed untiring ability in the acquirement of all knowledge, and was distinguished for her humble and womanly demeanor. She walked to and from school like ordinary folk, and never fell below her form in school. She was one of the most admired and beloved of pupils by the teachers, to whom she never forgot to show marked kindnesses. The young Empress finds time for attending public functions like Red Cross Society meetings and so on, but most of her time is devoted to her children. The eldest, Prince Hirohito, was born April 29, 1901, and proclaimed Crown Prince September 9, 1912. He has graduated from the Peers' College, is still taking private lessons, and is already a Lieutenant of the Army and of the Navy. The second of the imperial sons, Prince Yasuhito, was born June 25, 1902, and is still at school. Prince Nobuhito, the third son of Their Majesties, was born January 3, 1905, while the last son, Prince Takahito, was born December 2, 1915. The sons of the Emperor are brought up with certain companions selected for them from among the sons of noble families; and they have good times like other boys, going to school or playing in the imperial gardens, being up to all the mischief of boyhood. Not infrequently the imperial parents join in the children's fun and add to an afternoon's pleasure. The story goes that one day the Imperial Princes were found in a pond hunting tadpoles, up to their eyes in mud,

to the consternation of the attendants. Thus the young Emperor and Empress represent the true Japanese family: keen and intelligent with regard to all that concerns the welfare of the nation, and in character and habits simple and unostentatious, winning the same sympathy and devotion so lavishly bestowed on past rulers.

THE PRINCELY FAMILIES

As members of the imperial family the princes and princesses of the blood also take an important place. The Emperor has four



H. I. H. PRINCE KOTOHITO KANINNOMIYA

sisters living. The Princess Masako married Prince Takeda, the Princess Fusako married Prince Kitashirakawa, the Princess Nobuko married Prince Asaka, and the Princess Toshiko is the consort of Prince Higashikuni. Besides the imperial family there are some fourteen princely families who are of the imperial line, divided into two classes: the Shinno, or imperial princes, and the O, or ordinary princes. The term "O" means a suzerain king, like the King of Burmah, for example, or one of the rulers in Egypt. There are four families of Shinno, the Imperial Princes of Arisugawa, Fushimi, Kannin, and Higashi Fushimi, to whose descendants the succession to the throne falls in the event of failure in the direct line.

The oldest of the princely families is that of Prince Fushimi, founded by a son of the Emperor Shuko (1349-1352), and the present head is the twenty-first of the line. It is

remarkable that from this house have sprung all the other princely families except that of Prince Arisugawa, which would have become extinct had not the Emperor appointed his third son, Nobuhito Takamatsu-no-miya, to succeed the late Prince Arisugawa. The eighteenth Prince Fushimi was Sadayoshi who had four sons, the eldest of whom, Prince Kuni-ye, succeeded him, and the other three founded the princely houses of Yamashina, Nashimoto, and Kuni. Prince Kuni-ye had fourteen sons, nine of whom became the heads of houses. The second succeeded his father, becoming the twentieth Prince Fushimi; and he, having no children, was succeeded by his seventh brother, who is the present prince. The eldest son founded the house of Kitashirakawa, the third that of Komatsu, and the fifth that of Kwacho. The first Prince Kitashirakawa was succeeded in turn by two of his brothers, the fourth and sixth sons of Prince Kuni-ye. The eighth son succeeded as the sixth Imperial Prince of Kannin, and the ninth as the second Imperial Prince Higashi Fushimi. Thus the present heads of the houses of Fushimi, Kannin, and Higashi Fushimi are Shinno, and those of Yamashina, Nashimoto, Kuni, Kitashirakawa, and Kwacho are O princes; but all are direct descendants by blood of the Prince Sadayoshi and have the Emperor Shuko as their common remote ancestor. Prince Fushimi is a marshal of the Imperial Army, commanded the First Army Division in the war with Russia, and has visited England. The house of Arisugawa was founded by Prince Yoshihito, son of the Emperor Go-Yozei (1587-1612), and has had four sons of emperors as heads, the present head being the third son of the present Emperor. The family of Kannin was founded by a son of the Emperor Higashiyama (1687-1710). The founder of the house was followed by four successors of his own blood, but the fifth head of the house, being childless, adopted a son and was succeeded by the present holder of the title, Prince Kotohito, one of the younger sons of Prince Kuni-ye. The last of the imperial princely houses is that of Higashi Fushimi. The title was originally conferred after the Restoration on Prince Akihito, the third son of Prince Kuni-ye, who played a distinguished part in the latest stages of the civil war. While holding this title, Prince Akihito adopted his brother Yorihiro, thirteen years younger than himself, as his heir, but subsequently another title, that of Komatsu, was conferred upon him, and that which he originally held passed at once to his adopted heir, who accordingly became the second Prince Higashi Fushimi. Prince Komatsu died in 1903; and being childless, and his

adopted heir being already in possession of another title of equal degree, that of Komatsu, as an imperial principedom, became extinct; but it has been revived as that of a marquisate, in the ranks of the ordinary nobility, and conferred on the youngest son of the late Prince Kitashirakawa. The late Prince Komatsu was one of the few Japanese princes who distinguished himself by going abroad for an education, and in later years he again visited England on imperial missions. Some may be curious to know how it is that the sons of subsequent emperors of



VISCOUNT YOSHINAO HATANO, MINISTER OF THE IMPERIAL HOUSEHOLD DEPARTMENT

Japan have not founded princely houses. But it has been the custom for younger sons, if there were any, to retire to a monastery and lead a celibate life, so as to avoid rival claimants to the throne. The monastery at Ninnaji in Kyoto was considered a benefice for priests of princely birth and was successively ruled by thirty-three princely abbots. Four other princely houses of Japan are those of Kayo, Takeda, Asaka, and Higashi Kuni, the heads of which are scions of the house of Fushimi and blood descendants of Prince Sadayoshi, the houses being founded by his grandsons, all the sons of Asahito, first Prince Kuni. The house of Takeda was founded by the third prince of Kitashirakawa who descended from the eldest son of Sadayoshi. Of the princely houses that of Arisugawa is now nearest the imperial family in line of succession, as the head of it is third son of the present Emperor. The ties of relationship that exist between the various princely houses are much too



COUNTRY SCENES

involved to be further gone into here; but as they frequently figure prominently in war and peace one is usually interested in knowing what they are. All the princes of adult age take a very active part in public life. As members of the House of Peers they take part in the debates and vote, and in social functions they are usually prominent. While the members of princely houses can not be said to take the same part in war and peace that is taken by the noble families of England, there are notable exceptions, such as those of Prince Arisugawa and Prince Kitashirakawa who lost their lives during the war with China. Members of the imperial family cannot be arrested or summoned before a court of law except with the consent of the Emperor, though they can be civilly sued before the Court of Appeal in Tokyo, but their presence is not

required. The Emperor can deprive them of their ranks and titles if they should prove unworthy; and they cannot marry without the consent of the Emperor, nor are they allowed to marry outside of certain families.

As already mentioned the four daughters of the late Emperor married four of these princes of the blood. Prince Fushimi is married to a daughter of the late Prince Arisugawa, Prince Higashi Fushimi to a daughter of Prince Iwakura, Prince Kannin to a daughter of the late Prince Sanjo, and Prince Kayo to a daughter of the Marquis Daigo, all members of the old court nobility of Kyoto and connected with the Fujiwara family. The young Imperial Prince of Arisugawa is not yet married, but his predecessor was married to a daughter of the late Marquis Mayeda, Prince Kuni is married to

a daughter of Prince Shimadzu, and Prince Nashimoto to a daughter of the Marquis Nabeshima, all great feudal families. The princely houses receive an annual allowance from the Civil List, varying from £3,000 to £1,000, which leaves them to some degree dependent on the Emperor. The Emperor's own allowance from the Civil List is £500,000, but he enjoys a larger amount than this from Crown Lands and investments.

The Emperor and the Imperial Princes reside in Tokyo, though they have their own villas in various summer places. While the imperial palace in Tokyo is on a scale of becoming art and splendour it is very limited in comparison with the palaces of European sovereigns. The Japanese, however, admire this elegant simplicity as representative of national spirit and taste.





THE INLAND SEA, FROM A POINT NEAR ONOMICHI

II. THE COUNTRY

THE NAME—POSITION—AREA—COAST LINE—OROGRAPHY—GEOLOGY—VOLCANIC AND SEISMIC ACTION—HYDROGRAPHY—CLIMATE—FLORA AND FAUNA—POPULATION—TABLE OF WEIGHTS, MEASURES, AND MONEYS, WITH ENGLISH, AMERICAN, FRENCH, AND GERMAN EQUIVALENTS

THE country which Europeans call Japan is known to the people themselves as Dai Nippon, or Nihon, which means "Great Sun-source Land," hence the term, "Land of the Rising Sun." The name *Japan* had its origin with Marco Polo, the distinguished Venetian traveller who found his way to China toward the close of the thirteenth century, and learned of a great empire still farther eastward which the Chinese called *Jih-pen* and he *Zipangu*, *gu* meaning *kuo* or *country*, which, they assured him, was rich in gold, even the houses being decorated with it. Marco Polo carried this news back to Europe, where it excited no small interest, eventually inducing Christopher Columbus to set out in search of a westerly route to the East, when he came upon the New World instead of Old Japan. Thus Japan was indirectly the cause of America's discovery. Up to the year 670 A. D., however, the Empire of Japan was officially known as Yamato, the name of the province wherein the first emperor established his capital. After this time the official designation of the Empire

was Dai Nippon, referring to the whole nation, and not the main island only, as some foreigners supposed.

POSITION

THE Empire of Japan is situated on the northwest side of the Pacific Ocean, just off the coast of China; and, with the exception of the peninsula of Korea, consists of an oblong group of islands extending crescent-like down the coast from 50° 56' N. latitude below the Kamchatka peninsula, southwestward to 21° 48' N. latitude, near the Philippine Islands, a distance of over 2,000 miles. The most westerly point of the Empire is in Hokoto in the Pescadores, 119° 20' E. longitude; and the most easterly point is on the Island of Shumoshuto in the Kurile group, Province of Chishima, 150° 32' E. longitude. The Empire of Japan thus extends over 29° 0' 8" of latitude and 37° 12' of longitude. (See map.)

AREA

ALTHOUGH the Empire includes some 3,000 islands only 541 are habitable, while no more

than six are of any extent and importance, *vis.*, Hokkaido, Honshu, Shikoku, Kyushu, Formosa, and Saghalien, or Karafuto, as it is known to the Japanese. Of these by far the largest and most important is Honshu, the main island, sometimes called Hondo, and situated midway in the archipelago extending like a bow for 1,130 miles down the coast of the continent from northwest to southwest. The upper portion of the bow has a length of 590 miles, bent toward the Pacific, while the southern half bends for 540 miles toward the coast of Korea, behind the islands of Shikoku and Kyushu. Next to Honshu in size though not in importance comes Hokkaido, formerly called Yezo, to the north of the main island. It is a territory of bracing climate and fertile soil, but sparsely settled and still in process of colonisation from the southern islands. In order of size and importance then follow Kyushu, Shikoku, Formosa, which was ceded to Japan by China as a result of the war of 1894, and the southern half of Saghalien, ceded by Russia as the result of war in 1905. The more important of the smaller islands are

Sado, Oki, Tsushima, Iki, Oshima, Awaji and the four archipelagoes known as the Kuriles, called Chishima by the Japanese, the Bonin Islands (Ogasawara in Japanese), and the Luchu group, which the Japanese call Okinawa. The peninsula of Korea, called Chosen by Japan, was annexed to the Empire owing to political complications in 1910 and has added considerably to the area and population of the territory of Japan. The total area of the Empire is now something over 253,929 square miles, divided into the several islands and their dependencies as follows:

case the geological formation is more broken and the coast line serrated, resulting in the formation of numerous gulfs and inlets, while the comparatively unbroken line of the coast along the Japan Sea affords few sheltered harbours or safe anchorages. It naturally follows that trade has gravitated toward the area washed by the Pacific where communications, with the passing of time, have improved both by land and sea. There are at present sixty harbours open to foreign shipping and capable of accommodating steamships.

of this bay, which is some twenty miles long, stands the capital of the Empire, but owing to shallow water large ships will not be able to enter until the new Tokyo harbour is completed. Consequently foreign trade is carried on at the port of Yokohama, some twenty miles to the southwest. Other smaller ports on this coast are Yokosuka, one of the chief naval stations with extensive dockyards, and Uraga, which also has ship-building yards. Between Mizaki and the Peninsula of Izu extends far inland the great Bay of Sagami, with its seven Isles of Izu, and the famous Fujisan dominating the whole. Around the base of Fuji run the rivers Oi and Fuji on their way to this body of water. The next important indentation on this coast is the fair Bay of Isé with the port of Yokaichi at the head, and the city of Nagoya not far away. From there past Cape Irakozaki the coast is dangerously precipitous, a menace to navigation, until entering the Kii Channel leading to the extensive Bay of Osaka with the nation's commercial metropolis of the same name at the head, and the important port of Kobé to the left. Turning thither one faces the entrance to the wonderful Inland Sea with its innumerable islands, having a coast line of more than 700 miles. From here passage may be made to the Pacific through the Kii Channel, the Naruto Straits on the southeast, or to the Japan Sea through the Straits of Shimonoseki at the southwestern extremity of Honshu. Following the coast of Honshu along the Japan Sea, few important bays or harbours are found, as already indicated, except the Bay of Wakasa where are the ports of Maizuru, Miyazu, and Tsuruga, the first reserved as a naval station, and the latter used as the port of departure for Vladivostok and the Trans-Siberian railway. In this bay also lies the noted scenic region of Amanohashidaté, another one of the three most beautiful places in Japan. Farther north are the ports of Naoyetsu and Niigata, around the Noto Peninsula, and then the circle of the main island is completed at Aomori, the gateway to the northern island.

| NAME | DEPENDENCIES | AREA, SQUARE MILES |
|-------------------------------------|--------------|------------------------------|
| Honshu..... | 167 | 81,843.88 |
| Hokkaido..... | 13 | 30,299.87 |
| Formosa (Taiwan)..... | 7 | 13,851.99 |
| Kyushu..... | 150 | 15,600.54 |
| Shikoku..... | 74 | 7,036.48 |
| Luchu (55 islands)..... | ... | 935.18 |
| Chishima (Kuriles, 31 islands)..... | ... | 6,028.48 |
| Sado..... | ... | 335.73 |
| Tsushima..... | 5 | 266.53 |
| Awaji..... | 1 | 218.67 |
| Oki..... | 1 | 130.46 |
| Hokoto (Pescadores)..... | 12 | 47.62 |
| Iki..... | 1 | 51.43 |
| Ogasawara (Bonins, 20 islands)..... | ... | 26.82 |
| Saghalien (Karafuto)..... | ... | 13,154.00 |
| Chosen (Korea)..... | ... | 84,102.00 |
| | | <i>Total.....</i> 253,929.68 |

COAST LINE

THE coast line of Japan, omitting Saghalien which has not yet been accurately determined, and Chosen, is 18,340 miles in length, being a proportion of one mile to eight square miles of area, a ratio unusually large owing to the country consisting wholly of islands. The proportion of area to coast line of the major islands may be represented as below:

Though the northern coast of Honshu is unusually rocky, contributing to lack of good harbours, there are coastal indentations like the Bay of Aomori and the Sendai Gulf farther south. This portion of the coast is also noted for the beautiful Bay of Matsu-shima with its numerous pine-clad islets, a region of fairyland very attractive to tourists and ranked among the three most celebrated examples of scenic beauty in Japan. Off

| NAME | EXTENT OF COAST LINE | AREA OF ISLAND | PROPORTION OF AREA TO ONE MILE OF COAST LINE |
|----------------------------|-------------------------|-------------------|--|
| | Miles | Square Miles | Square Miles |
| Honshu and dependencies... | 6,040 | 87,450 | 14.6 |
| Kyushu and dependencies... | 4,507 | 15,920 | 3.51 |
| Shikoku..... | 1,650 | 7,037 | 4.26 |
| Hokkaido and Chishima.... | 1,535 | 30,300 | 19.74 |
| Formosa, excluding Hokoto. | 896 | 13,851 | 16.18 |

It is obvious that Kyushu has the greatest proportion of coast line to area, with Shikoku second, Honshu third, Formosa fourth, and Hokkaido fifth.

Very marked differences characterise the coasts of Japan facing the Pacific as compared with those on the Japan Sea. In the former

this northeast coast lies the fifth deepest sea-bed in the world, the descent being 4,655 fathoms. Proceeding southward the coast is more or less unbroken until reaching the mouth of the River Toné, passing which the Boshu Peninsula is turned, leading into Tokyo Bay, which faces south. At the head

As to the coast line of Shikoku there is no feature meriting special mention. The island is bounded on the north by the Inland Sea and the southeast coast of Honshu, and on the south it faces the Pacific and the Island of Kyushu. Shikoku has numerous small bays, and the coast bears evidence of extensive subsidence of the sea at some remote period. The coast of Kyushu is remarkably irregular with numerous small islands, and bays that extend far inland. On the Pacific lies the deep Bay of Kago-shima with its pretty old town of the same name, having steamship connection with



CAVES AT MATSUSHIMA TO WHICH BUDDHIST
PRIESTS OF MORE THAN TWELVE
HUNDRED YEARS AGO RETIRED
TO STUDY

the outlying islands. On the rocky east coast harbours are rare. To the extreme south lies the beautiful harbour of Nagasaki, the Naples of the Orient; and farther west the Sasebo naval station. Hokkaido is rectangular in shape, with mountain ranges running parallel to the coast line. South of the island is Hakodaté harbour, having connections with the main island. The Pacific coast of the island has long stretches of sand dunes thrown up by the violence of the wind and sea. Along this coast lies the port of Otaru. The Island of Saghalien extends like a monster fish up along the Russian littoral, half belonging to Russia and half to Japan. There are several bays along its serrated coast, the most important of which is Otomari. But the coast of the island is generally devoid of good anchorages. Formosa, which runs north and south, with a slight inclination to southwest, is high and rocky on the east coast, and sloping toward the west. The waters are deep on the elevated side and shallow on the other. The best harbour is Keelung in the north, while Tamsui is another port, with other inlets of less importance in the south. Formosa is not very distant from the Philippines. On its western coast lie the forty-seven islands of Hokoto; and between Formosa and Kyushu stretch the Luchu Islands, over fifty in number, while the Kuriles, or Chishima, away in the north, reach from Hokkaido to Kamchatka.

OROGRAPHY

JAPAN is as noted for its mountains as for its numerous islands, which cover nearly the whole of the country in well-defined ranges,

taking up at least seven-eighths of the total area, though there are extensive plains in Hokkaido, Honshu, and Kyushu. Tokyo stands on the plain of Musashi which is included in the Kwanto plain where also stands Yokohama; while the great cities of Osaka, Kyoto, and Kobé are on the plain of Kinai. The plain of Tsukushi is in Kyushu and covers large coal deposits. Among the more important of the great mountain ranges of the country is the chain which, rising in north Saghalien and running southwest across Hokkaido, goes through Honshu. Another range runs from southwest to northwest and forms the south wing of middle Japan. This range originates in China and, crossing the China Sea, passes through Formosa, branching off through Kyushu on one side and through Lake Biwa on the other, finally joining the range from Saghalien. The centre of Honshu thus forms a meeting ground for not only the important ranges of the island but for those of the Empire, forming the divisions known as North and South Japan and diversifying the country in climate and characteristics if not in soil. The tract of country facing the Pacific abounds with aqueous rocks and has few volcanoes, while the western side of Japan shows an extremely complicated geological formation with numerous volcanoes.

There are three principal volcanic ranges in the Empire. One runs along the line which divides the country into north and south, extending from the Mariana Islands across the Bonin group to Izu and Honshu, and is known as the Fuji Range. The second, known as the Kurile Range, runs from Chishima through Hokkaido to Honshu, while the third, or Kirishima Range, commences in Formosa and passes through the Luchu Islands to Kyushu, the chief vents being Sakurajima, Kirishima, and Asosan. From these ranges rise various important peaks, the highest of which are Mount Niitaka in Formosa (14,240 feet); Fujisan in Honshu (12,365 feet); Akaishi in Shinano (10,214 feet); Shirané (10,212 feet); Ontaké (10,128 feet); and the volcano of Asama (8,900 feet). The peaks of the Hida Range in Shinano are unusually fine; and, as they are covered with snow during the winter months and far into the summer, have been called the Japanese Alps. Of course Fujisan is the queen of mountains to all Japanese, towering golden-crowned into the illimitable blue, with her eight beautiful lakes at the base. Owing to the volcanic nature of so many mountains in Japan the country abounds in hot springs, which have become popular watering places, the most important of which are Kusatsu, Shiobara,

Ikao, Atami, Shuzenji, Hakoné, all in Honshu; and Dogo in Shikoku, Beppu in Kyushu, and Hokuto in Formosa. There are more than a hundred of these spas in all, and the majority contain sulphur, saline matter, or iron. Many of these hot springs have won a wide reputation for their curative properties for rheumatism and skin diseases.

GEOLOGY

JAPAN is probably for the most part a newer geological formation than the mainland of East Asia, though the subject has not yet been thoroughly investigated. It is obvious, however, that the country is rising on the Pacific side and subsiding on the coasts of the Japan Sea, suggesting that the archipelago was formerly a part of the adjacent continent. This conviction is confirmed by the fact that the coasts of Japan slope toward Asia while suddenly descending to abysmal depths on the Pacific side. The configuration of the archipelago, stretching like stepping stones between the continent and the northern islands, and between the southern extremity and Korea, also indicates a possible connection with the mainland in remote geological ages. The innumerable disturbances in stratification experienced by the framework of the islands, as well as by the sedimentary formations, render the study of stratification and the mutual relations of strata very difficult, if one would reach that degree of accuracy demanded by science. Japanese scientists, however, have classified



(UPPER) YABAKEI VALLEY, KYUSHU — (LOWER)
GEMBUDO CAVE, A BASALTIC FORMATION
ON THE COAST OF THE JAPAN SEA



VIEWS OF THE SHORE NEAR ONOMICHI AND MATSUSHIMA

the geological formation of the country as follows:

| SEDIMENTARY ROCK | | Per Cent |
|--------------------|-----------|----------|
| Archæan | | 3.78 |
| Palæozoic | | 10.24 |
| Mesozoic | | 7.95 |
| Cainozoic | | 45.84 |
| <i>Total</i> | | 67.81 |
| IGNEOUS ROCK | | Per Cent |
| Older Period | | 11.27 |
| Later Period | | 20.92 |
| <i>Total</i> | | 32.19 |
| <i>Grand Total</i> | | 100.00 |

It is obvious that Japan consists largely of igneous rocks, particularly in the Kurile Islands, Kyushu, and the northern part of Honshu. The principal rocks seem to fall into three main divisions: Plutonic rocks, more especially granite; volcanic rocks, principally trachyte and dolerite; and Palæozoic schists; while limestone and sandstone,

particularly of the Mesozoic strata, are strikingly deficient. Often the old crystalline rocks are for long distances overlaid by also very old schists and quartzites, striking generally in the main direction of the islands northeast to southwest. The older regions appear to reach an average height of from 3,000 to 3,700 feet, but at times as high as 6,000. In some districts Mesozoic sandstone and limestone are found in connection, more frequently in Tertiary formations, but volcanic masses break through and overlay all these rocks and deposits in numerous places. Often they fill up the gaps between them and appear to prevail for long distances, though frequently they form only the higher summits of the older mountains.

The basis of the islands consists of granite, syenite, diorite, diabase and related rocks, porphyry appearing comparatively seldom. Often the granite prevails for long distances as the chief rock; and then again it often forms the foundation for thick strata of schist and sandstone, itself only cropping out in valleys of erosion, river boulders,

rocky projections along the coast, or in mountain ranges or ridges. This is the case in Kyushu, and especially in Shikoku. In the composition of the mountains of Honshu granite plays a prominent part. In the Peninsula of Chikoku this rock forms a continuous mass, appearing in innumerable places in the interior and toward the coast. Old schists, free from fossils and rich in quartz, overlay it in parallel chains through the whole length of the peninsula, particularly in the central and higher ridges, sometimes bearing such ores as copper and magnetic pyrites. These schist ridges are rich in quartz and show considerable disintegration to a depth of thirty or more feet, resulting in pebble and quartz sand which affords scant nourishment to the scrub pines that try to cling to such foundations. In the hill country on the borders of Isé, Owari, Mikawa, and Totomi on the one side, and Omi, Mino, and Shinano on the other, granite frequently forms dark grey and much disintegrated rock projections above schist and diluvial quartz pebbles. The feldspar of a splendid pegmatite and its products of disintegration

on the borders of Owari, Mino, and Mikawa form the raw material of the extensive ceramic industry of this district with headquarters at Seto. The meridional mountains of Shinano are principally of granite, which, together with Plutonic rocks, especially diorite, hems in the valleys of the Kisogawa, Saigawa, and many other rivers in the district, whose clear waters flow over granite. In the vicinity of Nikko also, especially along the upper valley of the Daiyagawa and

neighbouring mountains, this granite appears with porphyry in large, pale flesh-coloured crystals of orthoclase, dull triclinic feldspar, quartz, and hornblende. In the border range of Kotsuké and Echigo there are also interesting varieties of geological formation. The Tertiary and alluvial deposits form a deep and friable mould easily worked and very prolific, this being the chief source of the nation's agriculture. Along the banks of rivers occur Quaternary argillaceous soils

of an alluvial nature, which are still more fertile; and as they lie low for the most part they are well adapted to irrigation and consequently to rice culture.

VOLCANIC AND SEISMIC ACTION

JAPAN is indeed a land of volcanoes, having more than fifty still active, with numerous craters for the present quiescent. These vents for subterranean forces are found along three clearly defined ranges, known as the



MOUNT ASAMAYAM, AN ACTIVE VOLCANO—UNZEN HOT SPRING, KYUSHU—HOT SPRINGS, KYUSHU—ASPECT OF DEVASTATED COUNTRY AT SAKURAJIMA, AFTER A VOLCANIC ERUPTION

Kurile, the Fuji, and the Kirishima Ranges, which exhibit about two hundred craters. The Fuji and Kirishima lines of force seem to show activity alternately. For several years such craters as Asama, Oshima, and Yakedaké in the Fuji Range were marked by the most conspicuous activity, but after the year 1914 activity shifted more to the Kirishima Range, with violent outbursts of volcanic force in Kyushu. In 1915 the strain returned to the Fuji Range and the great crater of Yakedaké re-awoke to violent energy, with resultant subsidence of action in the Kirishima Range. The most noble as well as the most remarkable of Japan's volcanoes is Asama, some eighty miles north of Tokyo in the Province of Shinshu, its giant cone soaring nearly nine thousand feet above the surrounding hills, with great masses of copper-hued fume ever rising skyward. At present it ejects nothing more harmful than showers of ashes and pebbles, but in 1793 a fatal eruption occurred when a lava stream poured out which destroyed a whole primeval forest and several villages. The land for miles around was buried to a depth of from two to four feet in showers of pumice and scoria. In recent years Asama has shown signs of further activity, but Japanese scientists are assured that there are no indications of violence. The last eruption of Fuji was in 1707; and though the base of the cone is warm and abounding in hot springs, there appears to be no sign of a return to activity. The largest volcano in Japan is Asosan in Kyushu, whose crater is about fourteen miles in diameter, though the active portion is not so large or imposing as the crater of Asama. Fugendaké is another volcano in Kyushu, rising above the hot springs of Unzen. In 1914 the volcano on Sakurajima near Kagoshima burst into violent fury, forcing out lava to a depth of over two thousand feet above sea level and killing fifty-seven persons, several others being killed by the resultant earthquakes. Agatsuma erupted with disastrous effect in 1903 when two geologists were killed, and Bandaisan exploded with similar effect in 1888.

Japan may also be called a land of earthquakes, if an average of more than four a day throughout the year be sufficient to justify this description, though happily few of them are of any importance. For some time now the country has been experiencing about 1,365 shocks annually; and during a period of 21 years, ending in 1905, more than 30,680 shocks were felt, omitting minor vibrations detected only by the most delicate instruments. As subterranean changes in Japan are constant, the frequency of these minor shocks is welcomed as a tendency to

remove weak cleavages and bind the strata sufficiently firm to prevent severer ones. It is when seismic disturbances are unusually rare that the danger of disastrous earthquakes in Japan is greater. As has been already indicated, the seismologists of Japan have established the fact that the districts bordering on the Pacific are slowly but perceptibly rising, while those on the Japan Sea are undergoing subsidence. On the axis of the central mountain range the whole main island appears to be twisting toward China. During the last 300 years Japan has been visited by no less than 108 shocks of a more or less disastrous nature, seven of them particularly so. Every Japanese expects to experience one severe earthquake during a lifetime. From the year 1885 to 1909 Japan experienced as many as 37,642 earthquake shocks, an average of 1,506 per annum for 25 years. Mild shocks passing unnoticed except by the seismograph occur daily. During the last 500 years earthquakes in which 5,000 or more persons were killed occurred as follows:

| DATE | | PLACE | HOUSES DESTROYED | DEATHS |
|------|--------------|-----------------------------|------------------|--------|
| 1505 | ..... | Tokaido..... | ..... | 20,000 |
| 1596 | Jan. 31..... | Pacific Coast..... | ..... | 5,000 |
| 1703 | Dec. 30..... | Tokyo and vicinity..... | 20,162 | 5,233 |
| 1707 | Oct. 28..... | Coasts of Shikoku, etc..... | 2,2900 | 5,000 |
| 1792 | Feb. 10..... | Hizen, Higo, etc..... | 12,000 | 15,000 |
| 1844 | May 8..... | Shinano..... | 34,300 | 12,000 |
| 1855 | Nov. 11..... | Tokyo..... | 50,000 | 6,500 |
| 1891 | Oct. 28..... | Mino, Owari..... | 22,501 | 7,223 |
| 1896 | June 15..... | Sanriku districts..... | 13,073 | 27,122 |

As to the above calamities the earthquakes of 1707, 1792, and 1896 were accompanied by great tidal waves, which in some measure explains the abnormal loss of life; but numerous shocks have been omitted in which from 500 to 4,000 fatalities occurred. To the resident of Japan the minor shocks are scarcely less alarming than the greater ones, for when a shock begins one never knows what it is coming to. Consequently preparations have to be immediately made to face the worst. With the introduction of electric lamps in most of the towns and villages of Japan there is not the same danger from fire as prevailed when oil lamps were in use; but every Japanese house has its *hibachi*, or small brazier for charcoal fire, which is sure to cause a conflagration should the timbers of the house be precipitated upon it. The writer has grim recollections of having been hurled a few inches above his seat while quietly reading at night, jumping to his feet and seizing the lamp from the table, rushing into the hallway only to meet other

members of the household each with a lamp, all silently gazing in terror at each other, wondering what it was all about, the shock having subsided even before they reached the hall.

The regions along the Pacific coast of Japan exhibit distinctly different seismological phenomena from the opposite coast, being more subject to secular movements of a severer nature and affecting a more extensive area, while the shocks on the coast of the Japan Sea are more of a local character. Along the Pacific coast the shocks originate in the great ocean depths just off Japan, and are not infrequently attended by destructive tidal waves. The districts least liable to experience seismic disturbances are Kotsuké, Hida, Tajima, and some parts of central Japan, while the wide plain of Musashi, where Tokyo stands, and the region about Sagami, are most given to such visitations. The Japan Earthquake Commission, which has given more time to the study of this subject than any other scientific body, under the able supervision

of Professor Omori, the greatest authority on Japanese seismology, estimates that the country has experienced 2,006 earthquakes of an important character since the beginning of the nation's authentic history. For the last thirty years or so Tokyo alone has had an average of ninety-six shocks a year, excluding those too mild for personal experience; but during the last fifty years the capital has suffered but two shocks of any great severity. The resident of Tokyo experiences at least one perceptible shock a week on an average. The last serious disturbance was in 1894 when twenty-four lives were lost. Needless to say, the frequency of secular movements in Japan has caused the national architecture to assume a distinct type calculated to withstand the strain of constant temptation to sway. Professor Omori is of the opinion that if regions exposed to earthquakes abroad, such as Italy, gave the same degree of attention as the Japanese to proper construction of houses, fatalities from seismological disturbances



AMANOHASHIDATE

would be reduced. Nearly all the greater structures now erected in Japanese cities are built after plans supposed to be earthquake-proof, a claim which the first severe shock will doubtless put to the test. Certainly the Japanese, with their ages of experience, have achieved more efficient means of precaution than other nations with regard to safety from earthquakes; for in the severe shock of 1891 out of a population of 165,339 in the city of Nagoya only 190 persons perished, whereas in the Reggio earthquake in Italy in 1908 the victims numbered over 100,000, the difference being largely due to wiser plans of house construction. In 1880 the Japan Seismic Society was founded under the united auspices of Professor John Milne and Professor Ewing, assisted by the late Professor Sekiya who gave his life a martyr to the science in the eruption of Mount Azuma in 1903. The work has been very efficiently carried on by Drs. Kato, Tanakadaté, and Omori. The seismograph invented by the society is one of the most accurate instruments of the kind known to modern science and has opened the way to the creation of a science of seismology. The proceedings of the Japan Seismic Society in twenty volumes are universally regarded as the most valuable contributions to this science. With her more than two hundred craters of which fifty are active Japan might be supposed to suffer from earthquakes chiefly on this account, but that there is any necessary connection between frequency of telluric movement and volcanic energy has not been clearly established, though there can be no doubt that active volcanoes act as safety valves, places situated near them seldom having suffered from seismic disaster.

HYDROGRAPHY

SINCE the islands which form Japan are narrow, and divided in the middle by moun-

tain ranges, the rivers are short and generally swift, but the proximity of the sea to all parts of the country and the great condensation of vapour on all the mountain peaks keep the country always well watered, and, at times, destructive floods occur from overflow of river banks. What the rivers lack in depth and length, however, they often make up in width, though for the greater part of the year the actual stream covers but a small area of the bed. Advantage has been taken of this to construct great hydro-electric plants, which supply light and power to towns and cities for miles around. The shallowness of the rivers is a great hindrance to inland navigation, on which so much of the country still depends for transportation.

The two mountain ranges which intersect in Hokkaido form four distinct watersheds, from which numerous streams flow down through extremely fertile plains. The River Ishikari, which runs west, is the largest stream in Japan, being over 400 miles in length, of which about 100 miles are navigable for small ships. Other rivers of the island are the Teshio, 192 miles; the Tokachi, 120 miles; while the Kujiro is 80 miles. In Honshu the Abukuma and the Kitakami flow into the Pacific, being 175 and 150 miles long respectively. Other rivers in the northern part of Honshu are the Omono, 173 miles; and the Mogami, 140 miles. In middle Honshu the Shinano River flows 215 miles through the fertile plains of Echigo into the Sea of Japan, and is navigable to small steamers for some 90 miles. The Jinzu and the Imizu, about 150 miles each, and the Kuzurin, 78 miles, are too swift for navigation. Such rivers as the Kino, Katsura, Toné, and Oi near Tokyo are made to furnish electric energy for lighting, traction, and other purposes, only lack of capital hindering further application of this force.

The Toné flows eastward into the Pacific for a distance of some 200 miles, watering an area of about 770 square miles, the largest plain in Japan. The Edo, a branch of the Toné, flows into Tokyo Bay, as also does the Sumida, 73 miles, navigable for the greater part. The River Fuji, which rises in Kai, flows around the base of the celebrated mountain of the same name, over a course of 125 miles, when it falls into the Bay of Suruga; while the Kiso, which rises in the Kiso Mountains, after meeting the waters of the Hida and Nagara, turns westward and enters the Bay of Isé after a journey of 130 miles. The Jodo flows from Lake Biwa past Kyoto into the Bay of Osaka; and the River Kamo runs for 85 miles in the same direction, having its source in Yamato. The only stream of importance in Shikoku is the Yoshino, about 150 miles in length. The rivers of Kyushu are extremely tortuous, like the hills whence they rise, the most important being the Chikugo, 85 miles, and the Kawauchi, 112 miles. The largest stream in Formosa is the Dakusuikei, 96 miles in length, and, like most of the rivers of the island, not suited to navigation.

The lakes of Japan, though for the most part merely basins of water of seismic or volcanic origin, are often extremely picturesque in scenery, the largest being Lake Biwa in Omi, with a circumference of about 180 miles. Other moderately extensive lakes are the Towada in Mutsu, with circumference of 37 miles; Inawashiro in Inashiro, 33 miles; while Chuzenji above Nikko, Hakoné near Mount Fuji, Lake Suwa in Shinano, and the eight small lakes of Fujisan, are all famous beauty spots forming attractive summer resorts. In Hokkaido the largest lake is Saruma, with a circumference of about 50 miles, while Lakes Doya and Onuma are noted for charming scenery.

CLIMATE

THE climate of Japan, as might well be expected from the country's extraordinary projection north and south, varies to a considerable degree according to locality and in general characteristics, the districts bordering on the Pacific being much milder than those on the coast of the Japan Sea, as the former shores are washed by the equatorial currents and protected by mountain ranges from cold winds. The so-called *kuro-siwo*, or Black Current, divides at the southern extremity of the archipelago, one portion sweeping back into the Pacific through the Straits of Tsushima, and the other northward along the Pacific coast of Japan. This renders the climate on the eastern side of the islands remarkably temperate, colder in winter and warmer in summer than that of England. In the northern part of Honshu as well as in Hokkaido and Saghalien the degree of cold is something severe during the winter months, especially in January and February, when 30° below zero is not infrequently registered on the west coast and a depth of from 5 to 10 feet of snow experienced. Here the thermometer often goes as low as 21° above zero during the coolest nights in summer; and only the hardiest grains and fruits can thrive, while there is plenty of skiing and skating in season. The lowness of winter temperature is no doubt due to the bitter winds that sweep across this part of Japan from the Siberian plains. The yearly mean temperature noted at the meteorological station at Sapporo in Hokkaido is 44° F. In the more southerly portions of Honshu, on the other hand, as well as in Shikoku and Kyushu, winter seldom lasts longer than two months, January and February alone being recognised as winter months, though sometimes there may be occasional frost and snow till the beginning of April. Tokyo and Kyoto have a mean annual temperature of 57° F., while Nagoya, Sakai, and Okayama, in the same island, have one degree more, Osaka and Kobe having 59° F., and Nagasaki 60° F. The farther one goes northward on the main island the yearly average is, of course, lower, being 50° F. at Ishinomaki and 50° F. at Aomori. The more southern portions of Honshu and the Islands of Shikoku and Kyushu experience hot and humid summers, when the atmosphere is unpleasantly oppressive and the mercury registers from 90° to 100° F. in the shade, which is much more unbearable than the same degree of heat in a less humid atmosphere. Periods of transition between summer and winter are short in the north, and toward the south are more and more prolonged at the expense of winter. The short-

ness of the winter in the south somewhat compensates for the extreme heat of mid-summer. Oranges and semi-tropical fruits gladden the eye everywhere. Though the south seldom sees enough snow to cover the ground, the more elevated mountain peaks may be white all winter. In Formosa, of course, with its lower half in the torrid zone, the temperature is steadily high, the mean annual temperature of Taihoku being 71° F. The following are the official figures of the Japan Meteorological Bureau up to 1912, given in Centigrade:

MONTHLY AVERAGE TEMPERATURE OF JAPAN

| Month | Taihoku | Nawa | Osaka | Nagasaki | Tokyo | Nagano | Niigata | Ishinomaki | Hakodate | Nemuro |
|-----------------|---------|------|-------|----------|-------|--------|---------|------------|----------|--------|
| January | 15.7 | 16.4 | 4.2 | 6.0 | 3.0 | -1.4 | 1.5 | -0.3 | -3.1 | -5.1 |
| February | 14.0 | 15.8 | 4.0 | 4.4 | 3.5 | -1.5 | 1.2 | 0.0 | -2.6 | -5.5 |
| March | 16.9 | 17.9 | 7.5 | 9.2 | 6.8 | 2.6 | 4.5 | 2.9 | 0.7 | -2.5 |
| April | 20.7 | 20.8 | 13.4 | 14.4 | 12.6 | 9.7 | 10.4 | 9.0 | 6.4 | 3.0 |
| May | 23.8 | 23.1 | 17.5 | 17.9 | 16.5 | 14.6 | 15.0 | 13.4 | 10.4 | 6.6 |
| June | 26.6 | 26.0 | 21.8 | 21.6 | 20.4 | 18.9 | 19.3 | 17.4 | 14.2 | 9.8 |
| July | 27.9 | 27.9 | 25.8 | 25.5 | 23.8 | 22.8 | 23.5 | 20.9 | 18.5 | 14.1 |
| August | 27.7 | 27.7 | 27.2 | 26.6 | 25.4 | 24.0 | 25.5 | 22.9 | 21.3 | 17.2 |
| September | 26.2 | 26.7 | 23.2 | 23.4 | 21.8 | 19.7 | 21.3 | 19.6 | 17.4 | 15.1 |
| October | 23.3 | 24.0 | 16.9 | 18.8 | 15.8 | 12.9 | 15.1 | 13.6 | 11.4 | 10.4 |
| November | 19.6 | 20.7 | 11.2 | 12.8 | 10.3 | 6.6 | 9.4 | 7.7 | 5.3 | 4.3 |
| December | 16.7 | 17.4 | 6.3 | 7.9 | 5.3 | 1.0 | 4.1 | 2.3 | -0.3 | -1.4 |
| Average | 21.6 | 22.0 | 14.9 | 15.7 | 13.8 | 10.8 | 12.6 | 10.8 | 8.3 | 5.5 |
| Maximum | 37.0 | 35.1 | 37.6 | 36.7 | 36.6 | 36.3 | 39.1 | 34.8 | 33.5 | 31.4 |
| Minimum | -0.2 | 5.2 | -7.1 | -5.2 | -8.1 | -16.4 | -9.7 | -13.6 | -21.7 | -22.7 |

Winds.—During the colder season which sets in with September and ends in April, Japan is visited by northern and western gales from the continent, due to low atmospheric pressure on the Pacific which is often down to 750 m.m., while on the mainland the pressure maintains an average of 772 m.m., a difference of 22 m.m. In the warm season from May to September the pressure on the Pacific rises to 767 m.m. or so, while that on the continent falls to 762 m.m., causing a southwest wind of mild velocity. Suttu in Hokkaido experiences the fiercest gales, the average being about 29 feet per second. Soya, Akita, Choshi, and Yokosuka also have to endure strong winds. Kumamoto, Gifu, Tokaichi, and Tsushima are least exposed to violent winds, the average in these places being not more than 7 feet a second. A peculiar feature of the Japanese climate is its liability to periodic gales, known as typhoons, which generally originate in the Philippines. These hurricanes usually visit Japan between June and October, and their force not infrequently attains a velocity of 70 miles an hour. The

typhoons generally come in the rainy season in August and September, and often cause great floods, since the wind is accompanied by heavy rains. Fortunately not many of the great winds cause damage, but the more violent of them wreck shipping, destroy buildings, flood thousands of acres of land, doing great injury to crops and roads, as well as causing loss of life.

Rainfall.—The rainfall in Japan is more than that of England and America, and in some districts four times greater, but happily the number of wet days in the year is less,

and the cloudless beauty of the blue sky is much more characteristic of Japan than of Europe. The average annual rainfall for the whole of Japan reaches 1,570 m.m. The rainiest spot in the Empire is Oshima in Kyushu, which experiences a rainfall of 3,400 m.m. a year; and next comes Koshun in Formosa with 2,600; Taihoku, 2,400; while the districts least exposed to rain are Abashiri, 715 m.m.; Soya, 840; Sapporo, 970; Nagoya, 1,190; and Okayama 1,080 m.m. In Japan it rains or snows on an average of 150 days a year, but the sunshine of the remaining 215 makes up for it all. The most delightful months of the year, as far as climate goes, are April and May, and November and December, when bright days, with an agreeable atmosphere, prevail. The most unpleasant season is that known as the *tsuyu*, or *bai-u*, which means "rainy season," from the middle of June to the beginning of July, due to the presence of low pressure areas in the Yangtze Valley in China, proceeding northeastward.

Generally speaking the climate of Japan is less bracing and more trying to the European



JAPANESE WOMAN PRAYING AT THE
FAMILY ALTAR

than his own. One cannot do more than half the amount of work in Japan that he can do at home without feeling greater loss of energy; and persistence in trying inevitably brings on "Japanese head," an affection resembling nervous prostration, peculiar to the country, which always involves being invalided home. All foreigners, therefore, while in Japan have to be careful not to indulge in a greater degree of mental or physical exertion than the climate allows. It has been said that the lack of bracing qualities experienced in the climate of Japan is due to absence of ozone, owing to Japan's forming the main conductor of the terrestrial electric current, which follows the Rockies and the Andes through North and South America and returns through the Japanese ranges. How much of scientific truth there is in this opinion the writer does not undertake to say. For those who suffer from the exigencies of climate in Japan there are attractive hill resorts and watering places where refuge can be comfortably had from the oppressive heat of summer or when in need of rest, without being obliged to travel far. The most common affections arising from the climate of Japan are catarrh, consumption, rheumatism, and brain troubles, but many of these may be as much due to ignorance of sanitation and hygiene as to climate. The average Japanese ages earlier than the European and American, but whether the climate has anything to do with this is uncertain. One is, however, convinced that the tendency of the Japanese to extremes of nervous insensibility on the one hand and uncontrollable excitability on the other is in some measure the effect of climate. At the same time it must be admitted that Japan has as many centenarians in proportion to population as most countries, the last census giving 4,252 males and 4,655 females as over one hundred years of age;

but it must be assumed that many of these probably could not remember the exact date of their birth. The Japanese climate on the whole agrees admirably with foreign children, which do not, as in India, have to be sent home for recuperation. Their elders, however, find that to ensure permanent fitness of condition they must take a year at home every seven years or so, some of the missionary societies insisting on furlough every five years.

in any part of Japan proper, not even in Kyushu, though it is cultivated in small quantities in the south, planted in March and cut in September, after but six months of vegetation. At the end of September the rice fields begin to fade, and by the end of October autumn tints dominate the landscape, surpassing in beauty even the boasted colours of North American forests. The tints of the Japanese maple in autumn are particularly beautiful; and it assumes the

AVERAGE MONTHLY RAINFALL AND SNOWFALL IN JAPAN
(In Millimetres)

| Month | Taihoku | Nawa | Osaka | Nagasaki | Tokyo | Nagano | Niigata | Ishinomaki | Hakodate | Nemuro |
|----------------------|---------|--------|--------|----------|--------|--------|---------|------------|----------|--------|
| January..... | 91.0 | 136.8 | 51.5 | 78.9 | 57.1 | 56.2 | 96.3 | 49.3 | 55.8 | 28.5 |
| February..... | 130.7 | 130.8 | 49.4 | 81.7 | 58.0 | 50.5 | 125.2 | 45.5 | 57.7 | 21.1 |
| March..... | 175.8 | 149.9 | 104.5 | 130.1 | 109.2 | 54.0 | 104.6 | 75.9 | 64.1 | 43.7 |
| April..... | 137.6 | 169.9 | 151.4 | 196.6 | 131.8 | 68.2 | 106.0 | 88.5 | 69.3 | 70.2 |
| May..... | 204.9 | 258.6 | 127.8 | 180.1 | 156.9 | 86.8 | 82.8 | 122.4 | 80.1 | 97.9 |
| June..... | 241.2 | 284.7 | 189.5 | 294.9 | 153.8 | 108.5 | 132.9 | 117.6 | 89.9 | 90.6 |
| July..... | 207.0 | 183.7 | 163.7 | 245.3 | 143.3 | 167.4 | 156.9 | 145.1 | 138.0 | 85.9 |
| August..... | 246.9 | 289.0 | 186.9 | 77.5 | 145.2 | 98.8 | 130.9 | 117.3 | 129.3 | 94.0 |
| September..... | 233.2 | 183.9 | 185.0 | 210.9 | 210.6 | 133.1 | 186.6 | 165.1 | 168.4 | 134.5 |
| October..... | 102.7 | 166.8 | 128.6 | 117.6 | 180.1 | 77.5 | 146.3 | 119.6 | 114.2 | 88.1 |
| November..... | 72.6 | 144.4 | 74.3 | 85.4 | 100.3 | 50.3 | 182.5 | 58.4 | 95.8 | 79.2 |
| December..... | 93.1 | 100.2 | 44.8 | 85.4 | 54.1 | 53.0 | 232.6 | 45.8 | 79.3 | 62.0 |
| Total..... | 1940.1 | 2154.2 | 1377.4 | 1884.4 | 1500.4 | 1004.3 | 1793.5 | 1150.5 | 1142.0 | 825.7 |
| Days of rain or snow | 185 | 198 | 140 | 164 | 146 | 176 | 237 | 152 | 191 | 156 |

FLORA AND FAUNA

(A) Flora

THE wealth, variety, and luxuriance of Japanese vegetation make the country one of the most interesting outside the tropics to the student of plant life. That the nation itself has been so dependent on the vegetable and plant world for existence has always rendered the subject of wide interest to the people themselves. The Chinese system of medicine, which was almost wholly adopted in early Japan, demanded a thorough knowledge of plants, and developed a familiarity with and a love of flowers unequalled elsewhere. The cold season of Hokkaido limits the period of vegetation there to about five months in the year, while in mid-Japan the season is six, and farther south, seven months, when the growths of all woody plants are interrupted, including even evergreens. As in all countries of low temperature and regularly recurring periods of suspended growth, the trees of Japan exhibit distinct year rings. Even as far south as Tokyo the palm flourishes only under careful protection, and oranges are produced only in the more fully sheltered valleys. The sugar cane does not thrive

same rich colouring when budding out in spring. By the end of October the deciduous trees are leafless, and but few plants then refrain from winter rest, among them the camillia, whose blossoming time is November and December, the last buds finally fading before the severe frost. Another camillia, called the Japonica, prolongs its flowering time to April. With December the grass has everywhere faded, and all the green fields turn a dull grey, changing the entire aspect of the country, which has been for many months so verdant. The plum blossom, which is a favourite with the Japanese, comes out in the south as early as February, announcing the approach of spring; but in the north its delicately tinted flowers are not seen before March and often run into April. The most beautiful blossom of April is the Japanese cherry, but the number of flowering plants at this season is still less than three per cent of the nation's flora.

The most important winter crops are barley, wheat, and rape, which are sown in drills and rows at the end of October and show a vigorous blade in November and early December when their development ceases until waked by the warm sun of

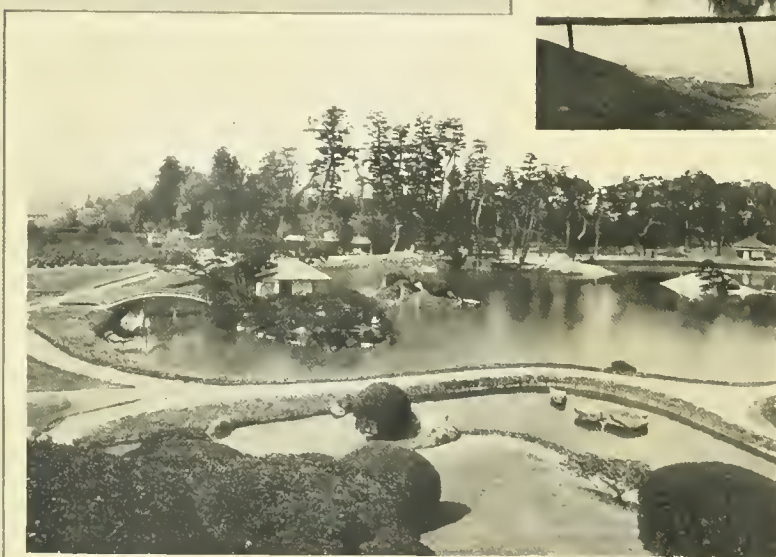
spring. The barley and rape make rapid growth from April onward, and are ready for harvest in June, with the wheat harvest some two weeks later. In the south the transition from winter to spring is much less marked and rapid than in the north, where everything quickly recovers its verdure with the return of spring. Another reason why spring is not so marked in the south is because the deciduous trees of groves and woodlands are so often mixed with evergreens that their change to spring attire is not so readily noticeable. By the beginning of May the fields of the south are in full summer dress and the song of the Japanese nightingale is again heard. Then spring showers are frequent and plentiful; and vegetation soon shows a variety and luxuriance that suggest the tropics.

The geographical distribution of Japanese plants is decided apparently by the geological formation of the country and the nature of the soil, producing a different vegetation according as the place is sand dune, freshwater land, plains, bush or hill country, highlands and mountains. The number of

sand and salt plants is very great, while marine flora are still more varied and plentiful, many being used as food. Japan has no heaths or moors, and consequently the plants usually associated with such places are wanting, especially peat mosses; but the wet rice lands have a peculiar vegetation of their own, starwort and pondweed being prominent. In Japan the hills are terraced and cultivated to a height and degree unsurpassed in any other country, but seldom higher than from 300 to 900 feet above sea level. Most of the hills are covered with red pine and low brushwood, but in places are quite bare. How barren and dry the soil of some of the hills may be inferred from the scrubby conditions of the pines that try to subsist on them. Trees of juniper, azalea, and rose grow among the hill grasses, the latter being known as coarse bamboo grass. In early summer when everything is green and the scent of pine resin mingles with the perfume of wild flowers, and the grating and chirping of cicadas on the trunks and branches of the pines echo above the humming and buzzing of innumerable insects

among the wild flowers, the scene is animated and delightful in the extreme. The red-flowered azalea often sets the hills ablaze with colour and presents a sight uniquely picturesque. The plains are for the most part given over to the growing of rice, there being practically no fallow or meadow land. But the higher hills are often not unlike meadows in their lack of trees and in their wealth of wild flowers, running up to 1,500 or even 3,000 feet, the more beautiful of the flowers being the mountain lilies, the azaleas, and wild roses.

Unlike the forests of Europe those of Japan have a great variety of trees and shrubs of all ages; and it is but seldom that one finds such foliaceous growths as oaks and beeches forming a forest by themselves. The unusual number of parasitic and climbing plants reminds us of the virgin forests of the tropics. There is indeed no doubt that the forests of Japan show a greater number of variously mingled trees than those of North America. To name the constituents of a Japanese forest would be to enumerate at least half the entire flora of



VIEWS IN KORAKUEN PARK, OKAYAMA, ON THE INLAND SEA

the world. In the higher mountains, as one proceeds northward, with the exception of conifers, there are few evergreens, and these chiefly shrubs. The principal constituents of such a deciduous forest are oaks, beeches, hornbeams, maples, birches, horsechestnuts, magnolias, azaleas, walnuts, elms, planes, ashes, alders and so on, all of which flourish best in the middle part of the Empire. The great number of climbers one can do no more than refer to, but some of them are very beautiful, especially the wistaria, which is often found climbing a hundred feet above the earth on trees or cliffs. The multifornity of a Japanese foliaceous forest is further increased by divers kinds of coniferous trees, especially firs, pines, and cryptomerias, according to altitude. The red pine and the black pine are the most common conifers in Japan, found especially in the lower levels and sandy places, like dunes and barren hills. Another of this family is the Alpine dwarf fir which prefers the higher altitudes. At a height of from 1,500 to 3,000 feet is found the handsomest of Japanese conifers, the cryptomeria, which furnishes the most esteemed wood for building and industrial purposes. This noble tree is the pride of temple groves, an ornament wherever found, and the constant theme of national poets. The mountains of Shinano possess fine forests of these cypresses, of which there are two kinds, the *sugi* or red cypress, and the *hinoki* or white cypress, which attain usually a height of about sixty feet and a diameter of three. Firs and larches grow at an altitude up to 7,000 feet, though the forest limit is usually about 6,000 feet, growth depending on circumstances of wind and sun. Since growth in Japan frequently depends more on wind and sun than on temperature one often finds the beautiful Japanese Alpine bell growing at surprising altitudes. The flora of the higher mountains is, therefore, a mixture of Alpine and northern plant forms, the species being such as are found widely in sub-arctic regions of the Old and the New World; especially common are they in the shady woods of the north temperate zone, ascending to greater elevations farther south. A small number of species, however, are peculiar to Japan. The origin of these has undoubtedly been in Siberia and Kamchatka, the seeds being borne southward by currents and monsoons, though probably some were carried by birds, especially by the ptarmigan.

With the exception of a few plants, like tobacco and potatoes, most of the cultivated products of Japan have been derived from China, though it is possible some are indigenous, such as the lotus. Hemp, cotton, and silk, which formed the chief material for

clothing in China, early came to Japan, as well as rice for food and tea for drink. The catalogue of endemic vascular plants of Japan, however, is a long one; and the great difference in their genera is astonishing. In the enormous number of monotype genera Japan stands alone among extra-tropical countries, with a remarkable mixture of species peculiar to the country, as well as such forms as are distributed over China, the Himalayas, tropical India, North Europe, Siberia, and North America, the extraordinary luxuriance and variety being due for the most part to high temperature, fertile soil, and abundant rainfall. Japan's close connection with the Kurile Islands in the north and the Luchu Islands in the south, as well as with Korea, offers every attraction for the immigration of Asiatic flora from the north, west, and south, the intervals between islands being bridged by sea currents and winds. The more northern forms easily found their habitat by pushing toward the higher mountains with the assistance of valley winds, the migration and development probably taking place after the glacial period.

To sum up, it may be said that existing flora in Japan number:

| | Species |
|-----------------------------------|---------|
| Phanerogamia, or flowering plants | 3,200 |
| Cryptogamia, or flowerless plants | |
| and ferns | 300 |
| Algae, or seaweeds | 400 |

For fuller information as to the various trees, plants, and vegetables of Japan, the reader is referred to the chapters on Forestry, Tea, and Agriculture.

(B) Fauna

The animal world of Japan is indeed scarcely less remarkable for interest and variety than the nation's flora, extending from anthropoid apes down to simple protozoa, species whose morphological relation or correspondence to other species may be separated widely in space and time. The land fauna undoubtedly came originally from China, Korea, and Manchuria, and belongs for the most part to palaearctic types, of which most of the Japanese mammalia, birds, and insects are but modifications, indicating that Japan has been more recently connected with the continent northward than southward. Though assuredly related to its neighbours of the northern half of Asia, the fauna of Japan has its own peculiar stamp, not, perhaps, so pronounced in the various classes of animals. There is an absence of several continental genera and a great variation of common species, with a persistence of others which in other countries have to be reckoned with extinct types. Japan is

quite an exception to the rule that the fauna and flora of islands are poorer than those of the neighbouring continent; for the insect world alone surprises the scientist by the great wealth of forms and individuals, of which he may find more in a day's walk than he could find in the whole British Isles, with which Japan is sometimes compared in point of size.

Marine Fauna.—The sea fauna is particularly rich in species of fish, Crustacea, and Mollusca, as well as in individuals, due doubtless to the inter-mixture of northern and southern marine fauna by sea currents and their effect on climate. Thus while the land fauna maintains its relation to that of the continental temperate zone, the marine fauna represents tropical and sub-tropical species as well, some of which are to be met with also in Malayan and Indian waters. At the same time there occur numerous species endemic to Japan. As fish forms one of the chief items in the national dietary of Japan much attention has been devoted to the subject. The country is certainly one of the most remarkable in the world for the number and variety of its fish, those appearing in the market alone reaching over six hundred species. Even the inland waters offer abundant quantities of trout, carp, shad, and eel. Japanese fish seem to migrate with the season, as do the birds, a fact that has to be borne in mind if one is not to make mistakes in studying the pisciflora of the islands. The Sea of Japan has been called the kingdom of the mackerel tribe, and with truth, as there are about forty species of this fish alone. One of the best fish is known as *tai*, a bream of beautiful deep red colour but with white meat. Tunny and bonito are also plentiful, some of which weigh over a hundred pounds. The haddock family has many relations; as also has the sole. Salmon is a very important fish, too, of which there are several species, ascending the lower rivers of the more northern coasts in autumn in enormous numbers and affording occupation and food to thousands. Herring is also abundant, as well as cod, sardine, and eel. Rays, sharks, and whales also abound in Japanese waters, and are used as food. It would be quite impossible in the space at our disposal even to enumerate in any lucid manner the great variety of fish found in Japanese waters, of which there are at least 1,230 species; and of amphibians at least 22 species. On the coasts of the Japan Sea there is a peculiar cuttlefish of phosphorescent quality which lights up the sea at night and affords amusement to fishermen to catch. Among Crustacea, crabs and lobsters, which are really crawfish, as well as crawfish and



RECEPTION ROOM IN A JAPANESE HOME OF THE HIGHER CLASS

shrimp, abound. The list of Mollusca is also long, of which at least 1,200 species have been classified. Among the more common are mussels, oysters, clams, auks, and hundreds of the snail variety. Most of the Japanese sea molluscs point to the Indian Ocean and the Malay Archipelago as their place of origin, but many are allied to the California coast. A considerable number of the marine molluscs of Japan form a valuable addition to the nation's food. Among Echinoderms sea urchins and starfish have numerous species, mostly related to those in the Indian and Pacific Oceans. Corals, rock-corals, and glass-sponges are also to be found, more especially in the southern waters. (For further information turn to the article on Fisheries elsewhere in this volume.)

Mammals.—Even a slight zoological knowledge of Japan soon reveals the fact that the country possesses a great variety of mammalian life. The red-cheeked ape is among the older and more familiar inhabitants of the islands, being found as far north as the Straits of Tsugaru. Of bats there are some ten or more species, though they differ from those of Europe. There are no hedgehogs, but there are six species of insect-eaters. Moles, shrew-mice, and river-rats abound, and the common rat in millions, being a frequent conductor of pestilence. Of Carnivora Japan affords such specimens as bears, of which there are three species, wolves and martens, though no wild cats, tigers or any of the tropical Carnivora. The flesh of the bear is eaten; and the animal is

held sacred by the Ainu. The badger and fox are common, the latter being enrolled among the figures guarding such shrines as those to Inari, the god of rice. The animal is believed to have powers of witchcraft and to take possession of women. While Marsupials are not well represented, there are numerous species of rodents, like squirrels and flying squirrels, as well as the rats already mentioned. Hares also are found, those in the mountains changing colour with winter. The wild boar is another interesting denizen of the mountain forests, affording sport to huntsmen and food to the people. The Japanese deer, or antelope, is a beautiful animal with eight-branched antlers, and found in various parts of the country. Among domestic animals, birds, and insects, Japan has the horse, a rather stunted animal, the cow, pig, dog, cat, rabbit, fowl, duck, pigeon, silkworm, and bee; the ass, mule, sheep, and goose being absent. The Japanese bantam and large gamecock are celebrated.

Birds.—In birds, too, Japan is remarkably rich, possessing more than four hundred species, most of them being of palæoarctic type and almost a quarter of them peculiar to the country. While the greater number of Japanese birds agree with the same species in Europe, the jay, cuckoo, and robin exhibit slight differences in size and colour. Sparrows, crows or ravens, and swallows are among the more common birds, as well as kites, falcons, and eagles. The *uguisu*, or Japanese nightingale, is more like the English whitethroat, though its song is

musical enough. Its back is olive-green and the breast grey and white. The golden-crested wren prevails in woods, with numerous companions of the tomtit family. The Japanese finch sings well; and a species of lark called the *hibari*. The water-ousel lives in remote places like mountain streams. One of the most beautiful of Japanese birds is the *kiji*, or pheasant, of which there are two species found in most of the hilly districts. Among waders, cranes and herons are plentiful and pretty, being mentioned frequently in the national literature. Wild ducks of various kinds abound, too, especially the teal, flocks of which frequent even the moats of the imperial palace in Tokyo unmolested. The mandarin drake is famed in Japan for its beauty. Wild geese and kindred water fowl are numerous, with cormorants and gulls beyond number.

Reptiles.—These are no more prominent in Japan than in China, as the country has no more than thirty-four species, though their relation to Indian, North American, and North European reptiles is interesting. The seven marine members, three turtles and four sea snakes, suggest a tropical origin, coming, as they no doubt do, on the Black Current to the southern coasts of the archipelago. There are also two species of fresh-water turtles, which occur in the rivers and ponds of southern Honshu, and in Shikoku and Kyushu, being regarded by the people as a symbol of longevity. There are several kinds of snakes, all harmless save the *mamushi*, or viper, a small green snake which is very poisonous, but which is, nevertheless, often eaten as a remedy against consumption, or made into snake wine for the same purpose. Of lizards there are three species, and of frogs and toads several. The giant salamander of Japan engages our special interest because of its limited field of distribution and its relation to fossil species. It frequents clear mountain streams at a height of 1,200 to 3,000 feet, and feeds on trout, the larvæ of insects, and batrachians.

Insects and Spiders.—In Japan insects thrive abundantly, and are for the most part related to kindred species on the continent, there being more than twenty thousand species recorded. Everywhere beetles and butterflies glow with richness and variety of colour, and prevail in species too numerous to mention. Ground beetles and stag beetles are abundant. Fireflies are placed in cages as toys to emit light at night, while any insect that can emit a strident note is also caged for its music. The butterflies are too wonderful for description, there being over four hundred species, many of them of tropical colouring. Moths are still more numerous and varied, and Japan is the

paradise of the entomologist. Wasps, bees, hornets, and ants abound innumerable. Gadflies, biting gnats, and mosquitoes are in millions untold, while the common house fly is a pest wherever odours invite. These are confined to season and altitude, but the ubiquitous flea defies all circumstances and makes himself a perpetual guest. Happily there are no bed-bugs, except as brought from China. Of Neuroptera Japan has a marvellous variety, the dragonfly being one of the most beautiful of the more than one hundred species. Grasshoppers, locusts, and crickets also flourish in their season. Several species of mantis, too, exist, though, owing to their quiet habits and similarity of colour to environment, they are seldom seen. The Japanese cicada is much in evidence during the heat of summer when he always insists on being heard, making an ear-splitting noise. Termites, together with tree-bugs and spiders, are also abundant.

The species of fauna found in Japan and those peculiar to the country may be summarised as follows:

| | Species |
|------------------------|------------|
| Mammals..... | 80 |
| Peculiar to Japan..... | 30 |
| Birds..... | 400 |
| Reptiles..... | 34 |
| Amphibians..... | 22 |
| Fishes..... | 1,230 |
| Insects..... | 20,000 |
| Dragonflies..... | over 100 |
| Ants..... | over 100 |
| Cicadas..... | over 38 |
| Butterflies..... | over 400 |
| Spiders..... | over 1,000 |
| Mollusca..... | over 3,000 |
| Crustacea..... | over 70 |

POPULATION

THE crime of sterility, mooted in some countries, can not be brought against the Japanese, for the nation is increasing at the rate of over 700,000 a year, and that without any assistance from immigration. The birth rate at present is nearly 4 per 100 of the population, which is greater than any other country except Germany. The birth rate of males exceeds that of females, there being an average of 105 of the former to 100 of the latter, but the death rate among males is sufficiently greater to compensate in a large measure for the difference. Taking a decennial period for which accurate figures are available, the growth of population may be seen in table at top of this page.

The birth rate may be clearly seen by surveying the decennial period from 1897 to 1906, as shown in table at foot of this page. The table will prove all the more interesting if it be borne in mind, also, that the period includes the years of the war with

| YEAR | MALE | FEMALE | TOTAL | INCREASE OVER PREVIOUS YEAR | RATE OF INCREASE |
|------|------------|------------|------------|--------------------------------------|------------------------|
| 1899 | 22,330,112 | 21,930,540 | 44,260,642 | 496,787 | 1.4 |
| 1900 | 22,613,177 | 22,202,821 | 44,815,980 | 555,338 | 1.25 |
| 1901 | 22,933,469 | 22,503,590 | 45,437,032 | 621,052 | 1.39 |
| 1902 | 23,233,676 | 22,788,833 | 46,022,476 | 585,444 | 1.29 |
| 1903 | 23,601,640 | 23,131,236 | 46,732,876 | 710,400 | 1.54 |
| 1904 | 23,834,398 | 23,381,237 | 47,215,635 | 482,754 | 1.03 |
| 1905 | 24,047,953 | 23,626,518 | 47,674,471 | 458,830 | 0.97 |
| 1906 | 24,312,779 | 23,848,062 | 48,160,825 | 486,365 | 1.01 |
| 1907 | 24,643,017 | 24,172,702 | 48,815,694 | 654,869 | 1.36 |
| 1908 | 25,045,359 | 24,541,884 | 49,587,243 | 771,549 | 1.58 |

Russia. Notwithstanding the losses from war it will be seen that the average yearly birth rate was 1,432,431, or 3.03 per 100 of population.

As to the death rate, the number of deaths from 1897 to 1906 was 945,102, the rate being 2.07 per 100 of population, greater among males than females, as will be seen from the first table on next page.

The present population of the Japanese Empire, representing the latest census returns which are up to the end of 1915, amounts to approximately 74,000,000, distributed according to provinces and dependencies as follows:

| | |
|---------------|-----------|
| Hokkaido..... | 2,256,633 |
| Tokyo..... | 3,361,484 |
| Kyoto..... | 1,324,765 |
| Osaka..... | 2,578,576 |
| Kanagawa..... | 1,272,972 |
| Hyogo..... | 2,214,932 |
| Nagasaki..... | 1,163,595 |
| Niigata..... | 2,112,185 |
| Saitama..... | 1,375,471 |
| Gumma..... | 1,042,279 |
| Chiba..... | 1,426,404 |
| Ibaraki..... | 1,365,478 |
| Tochigi..... | 1,066,184 |
| Nara..... | 606,843 |
| Miyé..... | 1,086,220 |
| Aichi..... | 2,178,345 |
| Shizuoka..... | 1,521,531 |

| | |
|----------------|-----------|
| Yamanashi..... | 613,907 |
| Shiga..... | 712,076 |
| Gifu..... | 1,165,199 |
| Nagano..... | 1,525,897 |
| Miyagi..... | 947,658 |
| Fukushima..... | 1,408,608 |
| Iwate..... | 896,679 |
| Aomori..... | 865,118 |
| Yamagata..... | 1,068,696 |
| Akita..... | 997,876 |
| Fukui..... | 651,053 |
| Ishikawa..... | 819,847 |
| Toyama..... | 923,620 |
| Tottori..... | 473,163 |
| Shimané..... | 762,135 |
| Okayama..... | 1,271,225 |
| Hiroshima..... | 1,706,087 |
| Yamaguchi..... | 1,107,994 |
| Wakayama..... | 775,116 |
| Tokushima..... | 758,073 |
| Kagawa..... | 767,682 |
| Ehimé..... | 1,024,179 |
| Kochi..... | 691,759 |
| Fukuoka..... | 1,953,178 |
| Oita..... | 972,465 |
| Saga..... | 704,742 |
| Kumamoto..... | 1,318,502 |
| Miyazaki..... | 622,249 |
| Kagoshima..... | 1,434,321 |
| Okinawa..... | 549,116 |
| Formosa..... | 3,392,063 |
| Saghalien..... | 35,823 |
| Korea..... | 1,312,027 |

Total.....73,995,930

| YEAR | MALES | FEMALES | TOTAL | BIRTHS PER 100 OF POPULATION | BIRTHS OF MALES PER 100 FEMALES |
|------|---------|---------|-----------|---------------------------------------|--|
| 1897 | 683,941 | 650,184 | 1,334,125 | 3.09 | 105.19 |
| 1898 | 696,137 | 673,501 | 1,369,688 | 3.13 | 103.36 |
| 1899 | 714,025 | 674,052 | 1,388,077 | 3.04 | 105.93 |
| 1900 | 728,648 | 693,271 | 1,421,919 | 3.17 | 105.03 |
| 1901 | 770,425 | 732,936 | 1,503,361 | 3.31 | 105.11 |
| 1902 | 774,484 | 738,606 | 1,513,090 | 3.29 | 104.86 |
| 1903 | 765,705 | 727,842 | 1,493,547 | 3.20 | 105.20 |
| 1904 | 740,241 | 704,066 | 1,444,307 | 3.06 | 105.14 |
| 1905 | 738,175 | 718,868 | 1,457,039 | 3.06 | 102.68 |
| 1906 | 728,768 | 670,435 | 1,399,203 | 2.91 | 108.70 |

| YEAR | MALES | FEMALES | TOTAL | DEATHS PER 100 OF POPULATION | DEATHS OF MALES PER 100 FEMALES |
|------|---------|---------|-----------|---------------------------------------|--|
| 1897 | 452,383 | 424,454 | 876,837 | 2.03 | 106.58 |
| 1898 | 459,307 | 435,216 | 894,524 | 2.04 | 105.54 |
| 1899 | 478,255 | 456,301 | 934,556 | 2.11 | 104.96 |
| 1900 | 467,359 | 447,190 | 914,557 | 2.03 | 104.53 |
| 1901 | 470,712 | 457,857 | 928,578 | 2.03 | 102.82 |
| 1902 | 488,615 | 473,476 | 962,097 | 2.09 | 103.41 |
| 1903 | 474,195 | 459,633 | 933,834 | 2.00 | 103.17 |
| 1904 | 524,670 | 474,946 | 999,621 | 2.12 | 110.26 |
| 1905 | 544,167 | 500,682 | 1,044,855 | 2.09 | 108.68 |
| 1906 | 484,675 | 476,872 | 961,550 | 1.98 | 101.64 |

| CITY | 1916 | | 1906 | |
|----------------|---------|------------|---------|------------|
| | HOUSES | POPULATION | HOUSES | POPULATION |
| Tokyo..... | 519,735 | 2,050,126 | 501,000 | 1,440,121 |
| Osaka..... | 300,768 | 1,395,823 | 278,777 | 1,226,590 |
| Kyoto..... | 91,105 | 509,380 | 81,136 | 442,462 |
| Yokohama..... | 82,966 | 397,574 | 78,438 | 394,393 |
| Nagoya..... | 97,114 | 452,043 | 84,438 | 378,331 |
| Kobé..... | 102,421 | 442,167 | 96,539 | 378,197 |
| Nagasaki..... | 23,551 | 161,174 | 23,816 | 176,480 |
| Hiroshima..... | 46,786 | 167,130 | 40,952 | 142,763 |
| Kanazawa..... | 37,592 | 129,804 | 28,613 | 110,994 |
| Kuré..... | 33,759 | 128,342 | 21,676 | 100,679 |

| YEAR | MARRIED | DIVORCED | MARRIED PER 100 | DIVORCED PER 100 |
|------|---------|----------|--------------------|---------------------|
| 1897 | 365,207 | 124,075 | 8.45 | 2.87 |
| 1898 | 471,298 | 90,465 | 10.77 | 2.27 |
| 1899 | 297,428 | 66,626 | 6.72 | 1.51 |
| 1900 | 346,590 | 63,926 | 7.70 | 1.42 |
| 1901 | 378,637 | 63,593 | 8.33 | 1.41 |
| 1902 | 394,378 | 64,311 | 8.57 | 1.40 |
| 1903 | 371,187 | 65,571 | 7.97 | 1.40 |
| 1904 | 399,218 | 64,016 | 8.46 | 1.36 |
| 1905 | 351,260 | 60,179 | 7.37 | 1.26 |
| 1906 | 353,274 | 65,510 | 7.34 | 1.36 |
| 1907 | 433,257 | 61,193 | 8.88 | 1.25 |

The density of population in various divisions of the Japanese Empire may be indicated thus:

| DIVISION | POPULATION PER SQUARE Ri (5,952 Sq. MILES) | POPULATION PER FAMILY |
|-------------------|---|-----------------------------|
| Honshu (Middle) | 3,315 | 5.56 |
| Honshu (North)... | 1,430 | 6.62 |
| Honshu (West)... | 3,347 | 5.14 |
| Shikoku..... | 2,692 | 5.40 |
| Kyushu..... | 2,782 | 5.80 |
| Okinawa..... | 2,201 | 5.17 |
| Hokkaido..... | 3,284 | 5.18 |

The average density, therefore, per square *ri* of the entire area of Japan, is 1,809, which is somewhat less than that of the British Isles and in excess of the density of population in Italy, Germany, and France.

Though agriculture is still the principal occupation of the people there is a steady drift toward the city, especially of the young, who are attracted by what they deem the less exacting life of industry and trade. Ten years ago some 16 per cent of the population resided in cities of over 10,000 inhabitants, while to-day more than 25 per cent of the population is urban. Indeed, it is not too much to say that at least 30 per cent of the population is now in cities, gravitation

being especially toward such industrial and commercial centres as Osaka, Tokyo, Nagoya, Kobé, and Nagasaki, while the country is further depopulated by the numbers that are attracted to Formosa, Korea, Manchuria, California, and the outlying dependencies of the Empire. The second table on this page will indicate the rate of growth in the principal cities. Thus all, with the exception of Nagasaki, have shown remarkable growth in the decade under review, the exception being due chiefly to the removal of trade from Nagasaki to Moji. Minor towns exhibiting an unusual increase of population are Sapporo, the capital of Hokkaido, Otaru in the same island, Moji already mentioned, Yokosuka, Sendai, Okayama, Sasebo, and Wakayama.

The people of Japan are divided officially into various classes, the four principal ones being the *Kwazoku*, comprising the imperial family only, whose spirits are entitled to worship after departing this life; the *Kwazoku*, or nobles; the *Shizoku*, or gentry; and the *Heimin*, or common people. Other classes are *chokunin*, or government officials appointed by imperial mandate; and *sonin*, or officials appointed by government departments. Of nobles there are about 5,000; of gentry nearly 2,000,000, and of commoners more than 40,000,000, the rest being of no class. In addition there are some 20,000 Ainu aborigines in the northern territories, and about 115,000 savages in Formosa. The number of foreigners residing in Japan is nearly 20,000, of whom British, Americans, and Chinese are by far in the majority.

A good deal has been said about the ratio of marriage to divorce in Japan, the country having long had the unenviable reputation of showing the largest divorce rate in the world. Happily the figures, though still large, are on the decline, as the third table on this page will indicate.

It may be questioned, however, whether the rate of diminution in divorce is as great as the above figures suggest, for divorce in Japan is still very easy, nothing more being necessary than a declaration by two reputable witnesses at the local police office that the divorce has taken place by mutual consent, judicial divorces being comparatively rare; but it is doubtful whether all the divorcees go to the trouble or publicity of having the separation thus registered. Still there is no doubt that the new civil code issued in 1898, requiring all marriages to be registered and divorce noted officially, has influenced in some appreciable measure the rate of divorce in Japan. Whether Japan will ever return to the old ratio of one divorce to every three marriages remains to be seen.

TABLE OF WEIGHTS, MEASURES, AND MONEYS, WITH ENGLISH, AMERICAN, FRENCH, AND GERMAN EQUIVALENTS

| JAPAN | GREAT BRITAIN | UNITED STATES OF AMERICA | FRANCE | GERMANY |
|--|---|--|-----------------------------|-----------------------------|
| <i>Ri</i> | 2.44030 Miles | 2.44029 Miles | 3.92727 Kilo-mètres | 3.92727 Kilo-meter |
| <i>Ri (marine)</i> | 1.15152 Miles | 1.15151 Miles | 1.85318 Kilo-mètre | 1.85318 Kilo-meter |
| <i>Square Ri</i> | 5.95505 Square Miles | 5.95501 Square Miles | 15.42347 Kilo-mètres Carrés | 15.42347 Quad-rat-kilometer |
| <i>Chō</i> = 10 <i>Tan</i> = 3,000 <i>Tsubo</i> | 2.45064 Acres | 2.45062 Acres | 99.17355 Ares | 99.17355 Ar. |
| <i>Tsubo</i> | 3.95369 Square Yards | 3.95367 Square Yards | 3.30579 Centi-ares | 3.30579 Quad-rat-meter |
| <i>Koku</i> = 10 <i>To</i> = 100 <i>Sho</i> | | 47.65389 Gallons (Liquid) | | |
| | 4.96005 Bushels | 5.11902 Bushels (Dry) | 1.80391 Hecto-litre | 1.80391 Hekto-liter |
| <i>Koku</i> (Capacity of vessel) | $\frac{1}{10}$ of one Ton | $\frac{1}{10}$ of one Ton | $\frac{1}{10}$ de Tonne | $\frac{1}{10}$ Tonne |
| <i>Kwan</i> = 1,000 <i>Momme</i> | 8.26733 lbs. (Avoir.) 10.04711 lbs. (Troy) | 8.26733 lbs. (Avoir.) 10.04711 lbs. (Troy) | 3.75000 Kilo-grammes | 3.75000 Kilo-gramm |
| <i>Kin</i> = 160 <i>Momme</i> | 1.32277 lbs. (Avoir.) 1.60754 lbs. (Troy) | 1.32277 lbs. (Avoir.) 1.60754 lbs. (Troy) | 0.60000 Kilo-gramme | 0.60000 Kilo-gramm |
| <i>Momme</i> | 2.11644 Drams 2.41131 Dwts. | 0.13228 Ounce (Avoir.) 0.12057 Ounce (Troy) | 3.75000 Gramme | 3.75000 Gramm |
| <i>Yen</i> = 100 <i>Sen</i> | 2s. 0.582d. | 0.4984 Dollar | 2.583 Francs | 2.0924 Mark |

The value of *Yen* is as follows:—

Prior to December, 1885 Gold *Yen* (0.4 *Momme* of pure gold)
 From January, 1886, to September, 1897... Silver *Yen* (0.7 *Momme* of pure silver)
 Subsequent to October, 1897..... Gold *Yen* (0.2 *Momme* of pure gold)

The question of emigration becomes one of absorbing interest in view of Japan's enormous annual increase in population; and the majority of the nation is convinced that some outlet must be found for the surplus. Inducements are offered for settlement in the outlying territories and colonies, but the average Japanese does not care for

the cold of Hokkaido and Manchuria, nor the torrid heat of the southern islands. He prefers America, South America, Australia, and Canada. It is a question, therefore, whether the activities of Japan's surplus population can be concentrated on the regions of the Far East and devoted wholly to the development of the nation's

new territories. There is at present grave dissatisfaction with the restrictions against immigration from Japan enforced in America and the British colonies, and most Japanese are persuaded that these must be removed and Japanese immigrants placed on a level with those from the countries of Europe.



THE FISHERMAN SPEARS A SALMON TROUT



HIMEJI CASTLE

III. THE PEOPLE

- (A) THE AGE OF MYTHS (— TO B. C. 660), ORIGIN OF THE JAPANESE—COSMOGONY—ARCHÆOLOGICAL EVIDENCE—DAWN OF EMPIRE—EARLY CIVILISATION. (B) THE YAMATO EMPIRE (B. C. 660 TO 794 A. D.), CONSOLIDATING THE INFANT EMPIRE—EXPEDITION TO KOREA—INTRODUCTION OF BUDDHISM—BEGINNING OF CHINESE INFLUENCE. (C) PERIOD OF FAMILY DESPOTISM (794 TO 1603 A. D.), THE FUJIWARA BUREAUCRACY—RISE OF THE TAIRA AND MINAMOTO CLANS, 794 TO 1199 A. D.—THE SHADOW-SHOUGUNS, 1199 TO 1334 A. D.—ARRIVAL OF EUROPEANS AND CHRISTIANITY, 1334 TO 1573—AGE OF USURPERS, 1573 TO 1603. (D) THE TOKUGAWA PERIOD (1600 TO 1868), THE ERADICATION OF CHRISTIANITY—THE LAWS OF IEYASU—FOREIGN RELATIONS IN THE TOKUGAWA ERA—REOPENING OF JAPAN—FALL OF THE SHOGUNATE. (E) THE ERA OF MEIJI (1868 TO 1914), EARLY REFORMS—FOREIGN RELATIONS—MODERN JAPAN

(A) THE AGE OF MYTHS
— to B. C. 660
ORIGIN

THE origin of the Japanese, more than that of most peoples, is lost in the mists of antiquity. Oriental ethnologists and anthropologists, however, for the most part agree in ascribing the birth and rise of the race that now in-

habits the islands of Japan to the blending of two streams of immigration that set in toward the archipelago in prehistoric time, the one from the continent of East Asia and the other from Malaya and the islands of the Pacific. The southern colony, together with intermittent infiltrations from the continent, settled on the island of Kyushu, particularly in the northern part, while the adventurers from the north, most of whom

were of Korean, Chinese, Mongolian, and Indonesian extraction, peopled the west coast of Idzumo. The southern contingents, pirates from the wild islands of the Pacific, being very warlike and aggressive, pushed their borders steadily northward, subduing if not wholly absorbing the less spirited but more highly civilized colonists of Idzumo, while exterminating almost wholly the savage aborigines that lay between. A

capital was finally established at Kashiwabara in Yamato under their leader, Jummi Tenno, who became first emperor of the newly formed empire in B. C. 660.

It may be no more than a mere assumption to suggest that the more salient streams of immigration gave rise to the subsequent clans which are found to have been so marked a feature of Yamato civilisation and government, as was the case in ancient Britain; but in all probability the incessant wars between the contending tribal settlements led to the preëminence of warriors who succeeded in founding great families or clans under whom, as in other countries, the commonalty gathered for protection.

As the two main streams of immigration perforce more and more harmonised and blended into a united nation called the Yamato, they waged relentless war against the savage Ainu, as the latter in turn did against the aboriginal *koropok-guru* (cave-dwellers), or *tsuchi-guma* (earth-spiders), as the Yamato called them, which doubtless were the first human inhabitants of the islands. Thus the Yamato extended their boundaries ever northward, partly subduing and partly exterminating the native peoples, until the whole of the main island and Kyushu were brought under imperial rule.

That the above contentions have some basis in reason and fact is clear from the following considerations. The great equatorial current from the south, which does so much to moderate the climate of Japan, divides at the southern extremity of the archipelago, one part sweeping toward the Korean coast and into the Pacific through the Straits of Tsushima, while the other moves up the coast of Shikoku and the main island and into the mid-Pacific, modifying the temperature even as far as the coast of the United States. The significance of these currents, however, is not so much that they have given Japan a climate of peculiar softness and moderation, but that they have been the highways of immigration peopling the islands of the rising sun. The *kuro-siwo*, or Black Current, brought the wild tribes of the Pacific islands, and the *Tsushima* current hastened the stream of migration from the Asiatic continent, thus making that complex mixture of races that now comprise the people of Japan.

COSMOGONY

THE above hypothesis is confirmed by Japanese tradition, and tradition again by archaeology. According to Japanese mythology there were two original deities, male and female, named Izanagi and Izanami, from whom in direct line the Emperor of Japan is descended through the daughter of



PAINTING OF ANCIENT GODS (KASUGA MIO-JIN)
IN THE IMPERIAL MUSEUM, TOKYO

the first divine pair, Amaterasu-Omikami, the Sun Goddess. As Izanagi and Izanami appeared one day on the bridge of high heaven, reclining on the clouds, in order to witness the raging of the depths beneath, Izanagi, the male principle, happened to let his richly decorated lance touch the sea, upon which the latter straightway parted, the land appeared, and the drops falling from the lance became islands. The first land to appear was the Island of Awaji on which the divine couple settled, as did Adam and Eve in Eden. From the same creative act seven other islands arose and bore thenceforth the name Oyashima, or Great Eight Islands: Honshu, Kyushu, Shikoku, Sado, Tsushima, Oki, and Iki. The fact that Hokkaido is not mentioned indicates that it was unknown to the myth-makers, who were naturally unacquainted with the more northern limits of the archipelago. But even in the best regulated households there are troubles; and so the divine couple at last quarrelled, the husband, Izanagi, retiring to the land of Idzumo. The incident, though mythical, is no doubt based on the fact of the constant collision between the insular and the continental im-

migrants, which was probably a marked feature of the early colonisation of the islands. When Japanese mythology further intimates that Susano-Omikami and his elder sister, Amaterasu-Omikami, son and daughter of the first divine pair, had a quarrel, like the first two offspring of Adam and Eve, the brother being driven to Idzumo, as Cain was to the land of Nod, it is probably a repetition of the first legend, both suggesting the monstrous regimen of woman even at that early date. In fact, all Japanese mythology tends to confirm the conviction that in the settlement of the islands the southern immigrants vanquished the northern, which renders the nature and origin of the southern race a subject of great interest.

In Japanese mythology the southern race is represented as two tribes; the Oyama-zumi, or mountain-dwellers, and the Honosuserino-mikoto, or coast men. Doubtless the newcomers, being fresh from the parent country, were better equipped for war, and drove the coast dwellers into the mountains, as the Romans did the Britons, and as the English colonists did the Indians in America.

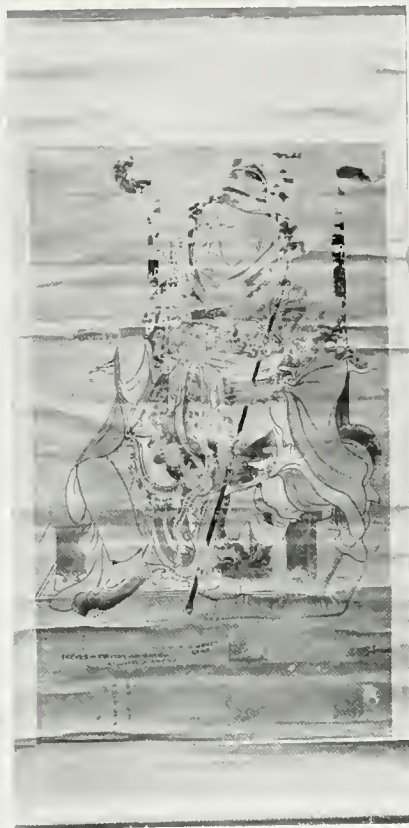
ARCHÆOLOGICAL EVIDENCE

ARCHÆOLOGY tends to emphasise the truth of the above tradition, as well as to throw some light on the origin of the races indicated. Fragments of pottery known as *yayoi* are supposed to represent the early immigrants who came up on the Black Current, as they are found chiefly in Kyushu and Shikoku, and even as far north as mid-Japan. The fact that they have some remote resemblance to utensils found in Java and Sumatra affords interesting inferences. It is probable, on the other hand, that the more recent coast-dwellers were of Malayan origin. The name Hososuserino-mikoto, by which they are referred to in Japanese mythology, means "blazing fire," which possibly suggests a very warlike temperament. Landing on the coasts of the Island of Kyushu, these Malaysians probably made their centre in Satsuma. One tribe of these, called the Hayato, seems to have worn clothes not unlike those in Oceania. They were fond of dancing, and were noted rebels, as may be inferred from references to them in the legends of old Japan. These Kyushu tribes were doubtless of large, thickset build, brachycephalic, flat-nosed, with thick lips and mouth, examples of which can be seen among even the noble families of Satsuma to-day.

As to the tribes that came over by way of Tsushima and settled on the Idzumo coast, it is evident that they also varied to a considerable extent, and had their clans, the chief of which were the Idzumo people who make Susano-Omikami, son of Izanagi and

Izanami, their ancestor. There was also a tribe known as the Tajima, headed by Amano-hibokotono-mikoto, and another tribe called the Tenson. It is obvious that the Idzumo tribe came from Korea, as may be inferred from the legends recorded in the ancient *fudoki*, or provincial official records of Idzumo, where it is said that Susano-O went to Korea. This people most probably had acquired a considerable degree of culture before immigrating to the islands, associated, as they must have been, with the civilisation of China, and skilled in metallurgy, weaving, and agriculture. Amano was possibly the son of a Korean king of Shiragi. The tribe which he led to the shores of Idzumo no doubt came into collision with the tribes already there, as did the Danes and Saxons in Britain, and after much strife they were in turn very likely brought into subjection to the Tenson people, the superior of all the other tribes in spirit, skill, and general civilisation. This race was of Mongolian or Palasian stock, dolichocephalic, of slender stature, with long face and nose, and small mouth.

Japanese scientists are not quite agreed as to whether the superior race came from the north or the south. There is good authority for believing that the insular and continental tribes which peopled the north coast of Kyushu were of quite superior stock, establishing a sea kingdom known as the Wadatsumi, there being no archaeological remains to show that this tribe settled in the south of the island. Moreover, the cult of phallic worship which persisted for so many centuries in Japan, and is not even yet quite extinct, coincides remarkably with similar cults in Borneo, and no doubt had its rise in Polynesia, spreading over India, Phœnicia, Greece, Egypt, and other countries. The mathematics of Japanese mythology also suggests a southern origin. In ancient Japan they had a system of counting by eight, which probably arose from omitting the thumbs when counting on the hands, a custom which exists in Borneo where a sacred value is attached to the number eight. Also in many ways Japanese physiognomy resembles that of the natives of the Philip-pines and the Tonga Islands. The customs of colouring the teeth and of cockfighting which prevailed in Japan were of Polynesian origin. The architecture of the two races is also somewhat alike, especially in thatching and the elevation of the floor and general openness. These facts, of course, do not tend to discredit the fact of immigration from Korea to Idzuma from which direction the more superior of the Japanese race probably came, especially the Tenson, which some Japanese regard as the imperial race.



SHIURA MIO-JIN, ONE OF THE ANCIENT GODS.
FROM A PAINTING IN THE IMPERIAL MUSEUM,
TOKYO

On the whole it seems safe to conclude that the southern and northern streams of immigration clashed and struggled until fusion was finally complete and that unity achieved which now characterises the people of Japan. It cannot be denied, however, that the uniformity is not so complete as to have wholly obliterated the original divergences of race and tribe, for reversion to type is common, and enters even into politics and caste in modern Japan. Archaeology further reaffirms the tradition of the Japanese and the Ainu as to the existence of cave-dwellers, or earth-spiders, who inhabited the islands before the Ainu and their conquerors, and who were of a culture approaching that of the neolithic period. The kitchen remains and stone implements found simultaneously in Japan, Saghalien, and the Amur region show that a similar culture prevailed in all these countries, suggesting the northern origin of the Ainu and their predecessors, though such high authorities as Dr. Gordon Monroe think the Ainu may have had a more southern origin. One must at least infer that the Ainu conquered the cave-dwellers or real aborigines, and were in turn themselves conquered by the Yamato. Thus the Japanese race is a mixture of Mongolian,

Annamese, Malayan, Javan, and Indonesian bloods, though their philological relations are chiefly with the continent of East Asia.

DAWN OF EMPIRE

MOST of the tales with regard to the establishment of the Empire and its first ruler must be regarded as mythical, though undoubtedly there are some substrata of truth in them. Although there are no authentic historical records before the sixth century A. D., the Japanese believe that their Empire has enjoyed an unbroken and independent history of 2,570 years. While this obviously requires more faith in mythology than the modern world is prepared to approve, archaeology affords ample ground for inferring that Japanese history and civilisation extend far behind the nation's written records. The numerous objects of highly developed art and utility that have come down to us from prehistoric time in Japan suggest at once a state of society so well advanced that it must have had its origin centuries before the beginning of recorded annals. When objects indicating a highly evolved stage of civilisation are found in the Japan of the seventh century it is not too much to suppose them the fruits of a social system that had birth at least a thousand years before. Yet it must not be forgotten that Japanese civilisation, like the national system of writing, came for the most part ready-made from China, and soon dominated the semi-civilised tribes crowding upon the shores of the archipelago from the continent and the islands of the Pacific. Consequently the Yamato civilisation developed much more rapidly than it could have done unaided.

The *Kojiki*, or Record of Ancient Matters, is the oldest of Japan's historical records, but nevertheless mostly of a mythical nature; yet it very probably has some grain of historical truth in the assertion that the first emperor was the direct descendant in the fifth generation of the Sun Goddess, Amaterasu Omikami. His original home is indicated as at the base of Mount Takachiho, in the Province of Hyuga in Kyushu, whither his ancestors had descended from on high. He led an expedition northward; and after many long travels by sea and land, including some miraculous adventures, he reached the land of Yamato in central Japan where Kyoto now stands, establishing his capital at a place between Osaka and Nara. There he reigned seventy-five years, at last passing away at the age of one hundred twenty-seven. Divested of its mythical elements this probably means that the first ruler was the chief of a body of immigrants which landed in Kyushu; and having established a base on the island, finally pushed authority as far



IRON HELMET RECOVERED FROM DOLMEN IN
YECCHIZEN PROVINCE. IN THE
IMPERIAL MUSEUM, TOKYO

north as the central portion of Honshu, meeting the men from Idzumo on the way. The first chieftain, like the vikings of Europe, was undiscouraged by storms and other dangers, but proceeded on his way, laying waste the land and exterminating the Ainu and the *tsuchi-guma* wherever they opposed his march, until he met and overcame the more highly civilised tribes of the north. After the establishment of the capital at Kashiwabara in Yamato the prowess of the conquerors was chiefly bent on subduing the Ainu and other northern savages, who inhabited inaccessible places and stubbornly contested every step of the imperial advance. Since archaeological remains of the Ainu are found as far south as Kyushu it is supposed that they one time inhabited the whole of the archipelago and were driven north by the immigrants. But who the Ainu are and whence they came remains an unsolved problem, in spite of extensive research. A study of their language, as compared with that of Japan, shows that the two tongues have but little in common, though mutually borrowing from each other. The traditions of the Ainu themselves indicate a northern origin. Up the rivers and bays of the islands they came two thousand years ago in their rude dugouts, and assaulted the heights occupied by the unknown race now extinct. They won their way south until they met the Yamato and so were finally turned back by the legions of Jimmu Tenno. It is clear, however, that through the seventh and eighth centuries they were still not fully subdued, as expeditions were often sent against them. Indeed, relations between the Yamato and the Ainu were much the same as those prevailing to-day between the Japanese and the savages in Formosa, or as between the Romans and Picts in ancient Britain.

EARLY CIVILISATION

THE state of civilisation prevailing in Yamato from the days of Jimmu Tenno

down to the beginning of recorded history in the sixth century A. D. may be inferred from the Kojiki, the Nihongi and other ancient chronicles, whose mythical nature need not nullify their evidence as to the current condition of society. The Yamato of the mythic period long knew how to work in iron, for they made swords and lances and other objects of metal. One of the southern tribes had bronze implements, some of which have been found in archaeological remains. Though pestle and mortar, scythe and shuttle, are mentioned, nothing is said of the saw and axe which must have been quite as common. There is mention of houses, temples, palaces and other buildings, which appear to have been along the banks of rivers and the seacoast. Ropes seem to have been used in place of nails, as is still often the custom in Japan, even for fastening together the frames of houses, of which the floors were on a level with the ground, affording access to reptiles and other creeping things. The roof was of straw thatch in which an opening was left for smoke to escape. Houses had windows and skin mats, doors had hinges, and there is mention of silk. Cleanliness was apparently regarded as important, bathing being common. The main food was meat, fish and rice, but beans, millet, and barley are also mentioned. Food was served in pottery or on leaves. Dress showed some degree of elegance, and included jackets, loose trousers, girdles, hats, bracelets, and necklaces, the material of clothing being chiefly hemp or bark. Horses and domestic fowls were kept, and the cormorant was used for fishing. There is no reference to cats, pigs, or sheep. The orange is mentioned as having come from the land of eternity. The people as yet knew nothing of tea, fans, porcelain, lacquer, carriages, chronology, money, medicine, or letters. They made no difference, as many Japanese still do, between blue and green; and there was no difference between the word for sister and for wife, as marriage with sisters was common, especially if she were the child of a different mother, as must often (or perhaps always) have been the case in a polygamous society. The custom still prevails in Siam. There was no marriage ceremony; and a citizen could have as many wives as he liked. Burial was conducted with due ceremony; and the house of a deceased master was abandoned. Coffins were of wood; and frequently the retainers of great personages were buried alive with their masters, the heads being left above the earth. This custom prevailed down to 70 A. D., when clay figures were substituted for living forms. But the idea of it being the duty of the dependent to die with the

master still obtains in Japan, as was seen in the action of the late General Baron Nogi, who deliberately took his life to depart with the late Emperor Meiji. In the later ages of mythical Japan the dead were interred in dolmens, many of which yet remain to indicate the state of civilisation contemporaneous with them. Some of these dolmens are of gigantic proportions and of a megalithic construction that puzzles the mind of the modern engineer to know how such monoliths were lifted into place. In these dolmens are found fragments of pottery, bronze harness decorations, bronze mirrors, and gold rings. Treachery and dishonesty appear to have marred the social and moral life of the ancient Yamato, examples of which are numerous in the ancient chronicles.

(B) THE YAMATO EMPIRE

B. C. 660 to 794 A. D.

CONSOLIDATING THE INFANT EMPIRE

IN Japanese history, even after the veil of legend has been lifted and tradition begins to assume a more tangible form there is still a remarkable absence of reliable data by which the ancient heroes can be disrobed of the myths that enshroud them. As has already been indicated, according to the



IRON CUIRASS RECOVERED FROM A DOLMEN
IN YECCHIZEN PROVINCE. IN THE
IMPERIAL MUSEUM, TOKYO

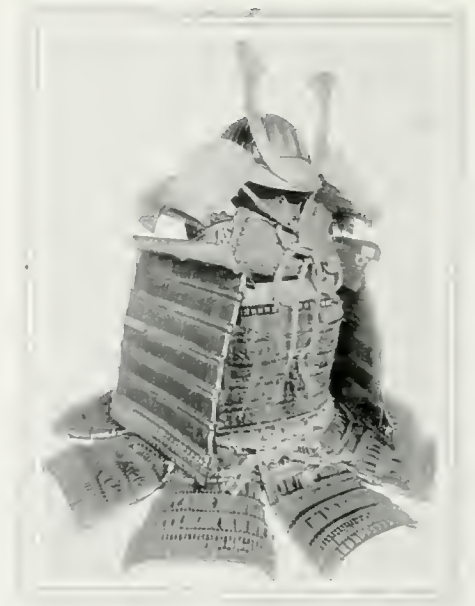
ancient chronicles, Jimmu Tenno, the first emperor, set up his capital at Kashiwabara in Yamato whence he subdued the tribes of the neighbouring districts. He was the founder of the imperial dynasty that still rules Japan, of which the present Emperor Yoshihito, is the 122nd in direct succession. *Jimmu* means "Prime War Spirit," and *Tenno* means "King of Heaven," and every emperor of Japan has the latter title. As

imperial palladia the first emperor left to his successor the three divine symbols given him by the divine ancestors; the sacred mirror, the sacred sword, and the sacred jewel, which each ruler of Japan has since received in turn, and without which no one can ascend the imperial throne of the nation. The three sacred treasures were handed down in order by the succeeding ten emperors; but in the reign of Sujin Tenno facsimiles of them were made, and the originals deposited in the imperial shrine erected at Isé, which was built in honour of Tensho Daijin, the posthumous name of the ancestor who first conferred the sacred treasures on the Imperial House. This shrine thenceforth became the central altar of worship for the whole Empire, as it still is, thousands making pilgrimages to it from all parts of the country. The tenth emperor, Sujin Tenno (B. C. 90 to 30), like Jimmu Tenno, was a remarkably enlightened sovereign, who subdued his foes, promoted civilisation and first introduced a system of irrigation for rice fields, as well as instituted taxation and regular religious worship. In his reign, for the first time, Japan

came into contact with Korea, then under the suzerainty of China. The peninsula at that time was divided into various petty kingdoms, one of which appealed to Yamato for aid against oppression from the north. The Yamato empire sent an envoy to interview the offender and his mission was successful, which shows the respect in which the Yamato country was held at that period. The kingdom of Mimana offered compensation for aggression on its southern neighbour by sending tribute to Yamato, and thus began a dependency which extended to other Korean states, and was the seed which sowed the policy leading to the annexation of the peninsula 1942 years later. The succeeding emperor, Suinin, (B. C. 29 to 70 A. D.), distinguished his reign by constructing great rice warehouses and abolishing the cruel custom of having retainers buried alive with the body of their master. The Emperor Keiko (71 to 130 A. D.) was an active prince who had much to do with suppressing the Kumaso tribe in Kyushu, in which war his younger son, Prince Yamatodaké, became a great hero, whose name still lives in national legend. He it was who also subdued the Yemishi tribes of the northern plains between Yedo Bay and the mountains of Nikko, in fact the whole *kwanto* country. In crossing the Bay of Sagami he lost his beautiful wife, Tachibana Himé, who flung herself into the angry sea to appease the wrath of Kōmpira (Neptune) and allay the waves that threatened to engulf her husband's boat, thus becoming a perpetual example to faithful wives and earning the veneration of all Japanese women, her statue being a conspicuous ornament in the capital of Japan.

EXPEDITION TO KOREA

In the reign of the fourteenth emperor, Chuai (191 to 200 A. D.), the tribal immigrants in Kyushu raised another insurrection and the emperor himself led an expedition against them, accompanied by his consort, the beautiful Jingo-kōgo, famed for her piety and intelligence. She conceived the idea of pushing the expedition to Korea, which her lord declined to favour, but as he soon died, she undertook to lead the invasion of the peninsula herself in person, which she successfully did, to the dismay of the Korean kingdoms, all of which yielded and consented to pay tribute to Japan. This further contact of Japan with Korea made the peninsula a regular medium of communication with China, whence the civilisation and art of that country now steadily found their way into the Yamato empire, changing its language, laws, and industry. This tendency was further promoted by the Emperor Ōjin (270-310 A. D.)

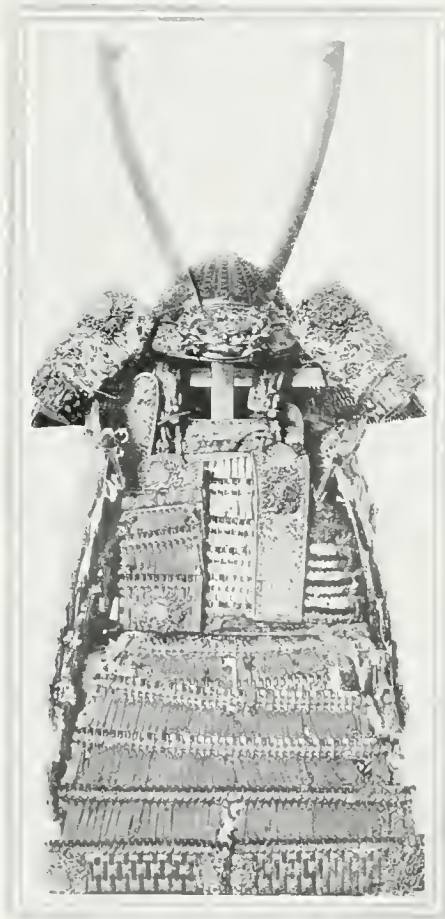


ARMOUR USED BY KUSUNOKI MASASHIGÉ, IN THE FOURTEENTH CENTURY

who was son of the Empress Jingo, and who drew slaves from Korea and imported horses, arms, miners, smiths, weavers, and teachers from China. On account of his martial prowess this emperor has been apotheosized as Hachiman, the god of war, with numerous temples still throughout the Empire, succoring the souls of all Japanese who fight for their country. During the reign of Nintoku Tenno (311-399 A. D.) were made the first experiments in the breeding of silkworms in Yamato; and the reign was further distinguished for liberal remission of taxation and encouragement of rice cultivation as well as by construction of roads. An expedition had to be sent to Korea to insist on keeping up payment of tribute, and another revolt of the Yemishi tribes had to be sternly put down. Succeeding rulers for some time appear to have been of little importance, save as they weakened the Yamato empire by their sensual inclinations and general effeminacy, loosening the ties with Korea. The whole of the fifth century seems to have been given to frequent revolts and dynastic changes, or to quarrels with Korea.

INTRODUCTION OF BUDDHISM

WITH the advent of Buddhism in the early part of the sixth century a change for the better came over the government and country. The religion of Yamato was Shinto, the Way of the Gods; but as the gods, or *kami*, were only the national ancestors, not a very lofty ideal could have been before the people for worship and emulation; and consequently society neither morally nor mentally much improved.



ONE OF THE FINEST AND OLDEST SPECIMENS OF ANCIENT JAPANESE ARMOUR, TRADITIONALLY SAID TO HAVE BEEN WORN BY GENERAL MINAMOTONO YOSHIIJE

Buddhism, while not introducing a much more definite or rational theogony, yet brought more humane ways of life and civilisation, as well as some measure of the art and culture it had given to India and China. Buddhist statues appear to have reached the land of Yamato before the religion they represented. The first image of Buddha reached the country in the reign of the Emperor Ketai (507-531 A. D.) as a gift from a king of Korea. By the year 552 the new religion began to inculcate its doctrines through missionaries from Korea. An image which the king of Korea sent to the Emperor Kinmei (540-571 A. D.) seems to have created considerable commotion in the religious world of Yamato; for the king of Korea praised the new religion, recounting the wonders it had wrought for his country and commending it to His Majesty of Yamato, with accompaniments of missionaries, books, and altar ornaments; but the strange faith met with spirited opposition from the exponents of Shinto, who feared it would offend the national gods and bring calamity on the Empire. The emperor appears to have taken a more liberal view and not to have assumed a partisan attitude either way. He was, however, obliged to make peace by handing over the objectionable image to an officer of the court who had gone over to the Buddhist faith, in whose hands it became a basis of Buddhist propaganda. Thereafter the emperor contented himself with requesting the king of Korea to send to Yamato physicians, soothsayers, and chronologists instead of Buddhist missionaries and their paraphernalia.

Through the whole of the sixth century apparently there were incessant petty quarrels among the kingdoms of Korea, Mimana, and Korai finally getting the best of it and in turn invoking the aid of Yamato, sending valuable presents which the Yamato chroniclers describe as tribute. Meanwhile the Buddhist religion continued to make headway and take firm root in Yamato, although the adherents of Shinto ascribed all fires, earthquakes, and national calamities to the anger of the old gods on account of jealousy against the new. The progress of the new faith seems to have been due for the most part to the tact of the Buddhist missionaries in hitting upon a policy of compromise in which the new gods were represented as being really the Shinto gods under other names, to prove which they welcomed many of the Shinto deities into the Buddhist pantheon or gave the Buddhist gods Shinto names.

BEGINNING OF CHINESE INFLUENCE

In the reign of the Emperor Sushun (560-592 A. D.) the king of Kudara in



BELL-SHAPED BRONZES RECOVERED FROM DOLMEN. VERY ANCIENT SPECIMENS OF METAL WORK IN JAPAN. NOW IN THE IMPERIAL MUSEUM

Korea sent over to Yamato temple architects, wood workers, painters, priests, Buddhists, and relics; and when the Empress Suiko came to the throne in 593 she openly declared herself in favour of the new religion and thus gained it a wider admission. This led to more intimate relations with the



BRONZE HALBERT AND DAGGER RECOVERED FROM DOLMEN. NOW IN THE IMPERIAL MUSEUM

Korean kingdoms and especially with China. Now came to Yamato knowledge of paper-making, ink, and millstones, as well as music. This empress further introduced the elaborate ceremonies of the Chinese court with all its rigidly maintained subordination of class and rank. The Empress Suiko ruled through her adopted son, Prince Shotoku, as regent; and as he was a devoted disciple of Buddha the religion made great progress under his auspices. At his death there were no less than 46 temples, 816 priests, and 569 monks in the country. Upon the demise of the good empress internecine strife arose over the succession and continued until the Emperor Kotoku ascended the throne in 662, after which time Yamato came still more under the influence of China. Chinese titles of rank, such as Daijin (Great Minister), Sadaijin (Great Left Minister), Udaijin (Great Right Minister), and Naidaijin (Great Inside Minister) came into use for the first time, and the country was divided into provinces after the fashion of Chinese territory. The custom of burying retainers alive with their dead masters, which had been revived with the growing laxity of society in previous reigns, was now sternly prohibited. The Emperor Tenji (662-670 A. D.) further increased the system of Chinese officialism, creating the office of Daijodaijin, or Minister President, and made his friend Fujiwara Imperial Counsellor, next in rank to the Imperial Family. Thus began an influence which the Fujiwara family retained for centuries, the imperial consorts always being taken therefrom; and the custom continues even down to to-day, the Fujiwara, next to the Imperial Family, being the oldest in Japan. In this reign China joined some of the Korean kingdoms in an expedition against Japanese influence in Kudara, when the Yamato garrison was driven out and sent home, bringing with it a large Korean immigration. By this time Yamato was well under the influence of the Buddhist religion; for we find the next Emperor, Temmu Tenno (673-686 A. D.), making confession of Buddhist faith obligatory, and prohibiting the eating of flesh. At this time silver was for the first time found in Yamato, on the Island of Tsushima. In the succeeding reign, that of the Empress Jito (687-696 A. D.), the temples of Buddha increased to 545; and tiles were for the first time used in roofing houses. Under Mommu Tenno (697-707 A. D.) the mulberry was cultivated, as well as the lacquer tree, and cremation used in disposing of the dead. During the rule of the Empress Gemmei (708-714 A. D.) the great highway, known ever since as the Nakasendo, was constructed through Mino and Shinano; and copper

mines were discovered and worked in Musashi. It was in this reign that the *Kojiki*, the first written annals of the Empire, were compiled, followed in the next reign, that of the Empress Gensho (715-723 A. D.), by the issue of the *Nihongi*, the second oldest source of Japanese history. Through the reign of the Emperor Shomei (723-748 A. D.) expeditions were carried on by Fujiwara Umakai against the northern savages, the frontal barrier of the Empire being pushed as far as the present Sendai. Chinese learning at this period poured into Yamato; and a Japanese who had lived long in China introduced a system of syllabic writing known as the *katakana*, used ever since.

The next four sovereigns of Yamato did little worthy of record; but the reign of the Emperor Kwammu (782-807 A. D.) opened a very important chapter in the history of the Empire. He was a ruler of unusual intelligence and application, directing all departments of government with efficiency and success. He built for himself a new city on the banks of the River Kamo which

he called Kyoto, and removed thither the capital from Nara. By this time Buddhist superstition seems to have taken full possession of society; for it was believed that the approach of devils would always be from what was called the devil's gate toward the northeast of the new city; and consequently the sovereign had a great new temple erected at Mount Hiyei to keep watch and ward over the capital, by reciting *sutras* and beating drums to keep away the evil spirits; which explains why Heiyecizan has been held sacred through succeeding generations. Expeditions against the northern tribes had to be undertaken in this reign also. Indians wrecked on the coasts of Yamato brought cotton seed to the islands for the first time; but the cultivation of the plant did not succeed and it had to be reintroduced later from China.

Thus closes a period of more than a thousand years of Yamato history in which the chief events were the nation's increasing intimacy with Korea and China and the influence of Buddhism on Yamato civilisa-

tion. Both Buddhism and Chinese influence instilled into the Japanese that reverence for ceremonialism and "red tape" from which it has not yet recovered, and led to an effeminacy of spirit that devoted more attention to sensuous ease and inner refinement than to the sterner virtues which manly discipline demands. Manners became morals, and etiquette more important than character. The world was essentially evil and all good lay in forsaking it or commanding supreme influence in it. Government was for the most part a system of rivalry between great families, while society was marked by love of ease and art, with the masses in poverty and ignorance. With the firm implantation of Chinese influence distinction between soldiers and civilians became more marked. The Mikado no longer took his place at the head of his battalions, but relegated that authority to successful warriors, giving rise to three great rival families, the Fujiwara, the Taira, and the Minamoto, who figure prominently in succeeding history. The monarch having thus abandoned direct



THE IMPERIAL PALACE, TOKYO

connection with active government, lived in seclusion with his court nobles, whilst the military class thus created developed a serving class known as *samurai* who fought for their masters, paving the way for the final introduction of feudalism. The Fujiwara family, through supplying consorts to the rulers, ultimately had the upper hand with the imperial court, and allotted the supreme military command to members of the Minamoto or the Taira clan.

(C) PERIOD OF FAMILY DESPOTISM 794 to 1603 A. D.

THE FUJIWARA BUREAUCRACY

THE Fujiwara family, which derived its influence from having been reputed friends of the first emperor, Jimmu Tenno, as the years went on occupied a position of increasing importance in the government of the country, always being in close relation with the imperial court, supplying the emperor with his consort and the government with counsel. For centuries this family had command of all the higher civil offices, and there, as well as in the intrigues of the court, they developed their main activity. As the mothers and wives of the Mikados were all Fujiwara, and the princesses of the blood were almost all married to members of that family, its influence was on every side enhanced and established beyond question. The Emperor Saga (810-823 A. D.) supplanted his brother Heizei Tenno who afterward conspired against him. He set free many important Yemishi prisoners who had been taken in war and allotted land to them; and also introduced the cultivation of the tea shrub, beside doing what he could to stay the degeneration of the Buddhist priesthood. His reign was marked by frequent earthquakes and floods which enabled the ruler to coöperate with the rich in alleviating the misery of the people. The reign of Junna Tenno (824-833 A. D.) suffered from further distress in consequence of draught and infectious diseases. The next emperor, Nimmio Tenno (834-851 A. D.), was a ruler of great independence and intelligence, promoting agriculture and protecting the poor, for whom he built almshouses, reducing the income of the rich to get the necessary funds; but after his death succeeding rulers failed to exercise similar control, and the Fujiwara placed a child on the throne, themselves taking the regency. Lacking in military qualities, they were unable to keep down the savages, giving the Taira and Minamoto clans the opportunity to rise to superior positions. A member of the Fujiwara family during the next reign managed to raise himself to the place of Kwanpaku, or Chief of State, who was really regent, as the

ruler was thenceforth scarcely more than a puppet. At this time pirates from Korea ravaged the coasts of Japan, probably in revenge for similar raids by the Japanese on Korea, but were finally driven off. During the reign of the Emperor Uda (888-897 A. D.), the Fujiwara had an influential rival in the person of Sugawara Michizane, famous for his erudition and piety and one time tutor to the emperor, and him they now wished to oust. The Fujiwara obliged the reigning emperor to abdicate, placing on the throne a child of twelve, Daigo Tenno, who reigned until 930 A. D., and then banished Sugawara to exile in Kyushu where he died in misery. The noble spirit of Sugawara Michizane has been deified as Tenjin, with temples in many parts of the country, and worshipped as a supreme example of loyalty.



THE OLD TOKUGAWA TOMB, ATAGO HILL,
TOKYO

In the time of Shujaku Tenno (931-946 A. D.), the Fujiwara influence began to wane somewhat before the rising families of the Taira and Minamoto. A revolution in Korea led to the establishment of the kingdom of Korai, from which the name "Korea" is derived. Taira Masakado in this period raised in rebellion against the Fujiwara autoeracy and attempted to become independent in the Kwanto region over which he was governor, the rebellion being finally crushed by the Fujiwara and their influence thereby continued. The most sought-after position as time went on was that of Sei-i-tai-shogun, or Generalissimo who chastises the Barbarians, an office created on account of the expeditions against the northern savages; and the rival candidates for this post were now from the Minamoto and the Taira clans, both of which traced descent from imperial blood.

RISE OF THE TAIRA AND MINAMOTO CLANS

794 to 1109 A. D.

DURING the ninth, tenth, and eleventh centuries while the Fujiwara still maintained

its bureaucratic position at court, and the Taira ambitions were confined to the southwest of the Empire, and those of the Minamoto to the northeast, both winning great martial glory, the two houses managed to maintain a tolerable understanding; but now in their attempts to supplant the Fujiwara influence at court they often came into collision, and the violence of their enmity led to bloody conflict. From 947 to 1108 the Fujiwara kept the Mikado under their fetters and would allow no intercourse between people and sovereign. During this period there were Korean raids on the Japanese coast, insurrections among the savages and even among the Japanese of Mutsu, with a menacing increase of insolence among the Buddhist *bonzes* at Heiyeizan. In expelling the Korean invaders and in quelling the northern rebels the Minamoto families had shown themselves warriors of the first order. During the reigns of the Emperors Shirakawa (1075-1086), Horikawa (1086-1108), and Toba (1108-1123) the insolent attitude of the Buddhist monks continued. With the dawn of the twelfth century feudalism and military despotism begin to appear. The influence of the Fujiwara is fast waning at court, and quite lost in the provinces, where the military chieftains are predominant. The authority of the Mikado was like an empty cash box of which the Fujiwara carried the key. The sword, rather than the court, henceforth decided all important questions. For the five succeeding centuries conflicts for possession of the supreme military power and the resultant authority of government devastated Japan. No wonder the national historians refer to this period as the Dark Age. The Emperor Toba tried to prevent the *samurai* of the provinces from flocking to the standards of the Minamoto and the Taira, but it was of no avail. The rivalry of the two houses grew with their sense of self-sufficiency and independence. Finally the pent-up rivalry between the two great houses burst into a conflagration consuming the whole country, like the wars of the Guelphs and Ghibellines in Italy, or of the Roses in England, only the war in Japan lasted for centuries. In the first conflict Taira Kiyomori was victorious and assumed at court an attitude of insolence that outdid even the Fujiwara, treating the vanquished Minamoto with great cruelty. Yoshitomo, the head of the Minamoto clan, was treacherously assassinated, and his son Yoritomo took his place, aided by his half-brother Yoshitsune, both being joined later by their cousin Yoshinaka, and their forces marched victoriously into Kyoto, the emperor welcoming them as his liberator from the Taira bondage. Yoshinaga who

led this army, proved insolent and indiscreet, taking a hostile attitude toward Yoritomo whose headquarters were at Kamahura; so the latter sent an expedition against him led by Yoshitsuné, when Yoshinaga was defeated and committed suicide. Yoshitsuné followed up his victory by pursuing the Taira forces southward, finally completely defeating and annihilating them in the historic battle of Danno-oura near Shimonoseki, 1185 A. D. The Taira clan was now cut off root and branch, sparing neither age nor sex. In this war the character of Yoshitsuné shone out above even that of his brother Yoritomo as a knight without fear and without reproach, which greatly excited the envy of Yoritomo who thenceforth sought his brother's death, the latter finally dying in exile. Yoritomo now marched in magnificence to Kyoto where he was received by the Emperor Go-Shirakawa, had high civil and military rank conferred upon him and then returned in contentment to Kamakura, his military capital. It was Yoritomo who brought the growing feudal system of Japan into its final shape; and after the death of the emperor he had conferred upon himself the title of *shogun*, which thenceforth became hereditary in the Minamoto family. Notwithstanding his jealous and cruel disposition Yoritomo was a man of great intelligence and firmness of character, and did much for the consolidation and improvement of the national government, always showing special deference to the imperial court. Time, however, cannot pardon him his heartless ingratitude to his brother Yoshitsuné; and the mistake he made in favouring the Hojo family representing his wife, led finally to the undoing of his own family, the Minamoto.

THE SHADOW-SHOGUNS

1199 to 1334 A. D.

As the Japanese proverb says, "A brilliant general never begets a brilliant son," and Yoritomo, when he died at the age of fifty-three, left to succeed him a libertine named Yoriie, who was unlike his father in every way save physical strength. The youth's mother, Masako, consulted with her father, Hojo Tokimasa, how best to restrain the waywardness of the young shogun; and it was decided to persuade him to divide the government of the provinces with his younger brother, Sanetomo, and his son Ichiman, which was only another way of placing the power in the hands of the Hojo family, since the persons named as governors were still but children. The father-in-law of Yoshiie saw through the scheme and had the shogun veto it, but Hojo defeated them, had his enemies executed, and banished Yoriie to

Izu, where he was secretly put to death, Sanetomo being appointed his successor. Thus at one sweep the Hojo family attained the military ascendancy once held by Yoritomo and the Minamoto family. In turn they acted toward the shogunate, on the one hand, and the imperial court, on the other, very much as the Fujiwara family had done toward the court in the days of old. The Hojo treated the shogun as a puppet and developed a despotism that threw the annihilated Taira clan far in the shade. During this period, therefore, when the house of Hojo held the regency, despotism prevailed, though it cannot be denied that some of the twelve regents were men of

ability and wisdom. The puppet-shogun, Sanetomo, was finally assassinated by a priest named Kugio, who regarded Sanetomo as the murderer of his father; and thus ended the main line of the Minamoto family. The Imperial Court at Kyoto found it impossible to tolerate the Hojo regents and the Emperor Toba II determined if possible to get rid of them. The imperial forces were, however, routed and the emperor banished to the Island of Oki, where he died in 1229 at the age of sixty. Yoshitoki, the representative of the Hojo family, now made the Imperial House feel his power, deposing emperors and banishing them right and left, as well as all who had any sympathy



FEUDAL CASTLE AT NAGOYA

with the imperial cause. Under succeeding regents government grew more and more complicated; and at one time (1260-1274) there was a child-regent managing a child-shogun, who was supposed to represent a child-emperor. During the regency of Tokimuné occurred the Mongol invasion of Japan under Kublai Khan, whose forces were driven back in 1281, a high wind and raging sea assisting in the destruction of the enemy. It was shortly after this time that Marco Polo visited the Chinese capital and learned of the untold wealth of Japan. During the Hojo regency every Mikado who showed the slightest tendency toward independence was obliged to abdicate as soon as he came of age; and no member of the Fujiwara or Minamoto family was allowed to occupy the imperial throne. As the absoluteism of the Hojo family became more and more intolerable the court at Kyoto sought further opportunity to regain its freedom, though it had not forgotten the misfortunes that had followed similar attempts on the part of previous sovereigns. But a season of drought had led to famine in which the agents of the Hojo regents had treated the people with cruelty; and this seemed a favourable time to declare independence. A celebrated warrior named Kusunoki Masashigé collected an army in Kawachi and came to the assistance of the emperor, joined later by another warrior, Ashikaga Takauji, from the north. Kamakura was taken and put to the flames, many members of the Hojo family falling in the struggle. Kyoto was also taken and the Minamoto interests were again triumphant, as represented by the house of Ashikaga.

ARRIVAL OF EUROPEANS AND CHRISTIANITY

1334 to 1573

AFTER the fall of the Hojo family the Emperor Go-Daigo made the mistake of distributing many of the important offices left vacant among unworthy favourites, exciting the animosity of the Ashikaga family, which, although they themselves had received the rich Provinces of Hitachi, Musashi, and Shimosa, were determined to assume a position of supreme importance in the Empire. The shogun at Kamakura, an imperial prince named Moriyoshi, was a weakling who neglected to keep the provinces in order, and came thus into collision with the house of Ashikaga and marched against Kamakura where he was welcomed in place of Moriyoshi, proclaiming himself shogun, though he had many a fight to retain the title. Imperial forces were sent against him from Kyoto. Ashikaga set out to meet them, crossing over the Hakoné Pass, where he totally defeated the Kyoto

army in 1336. Ashikaga then marched on the capital, whence the Imperial Court fled to Otsu. The famous hero, Kusunoki Masashigé, again rallied to the rescue of the imperial cause, assisted by various loyal *daimyo* and their troops. At first the imperial army was successful, but was later defeated on the banks of the Minatogawa near Kobé, after which Ashikaga marched in triumph to Kyoto, where he placed the son

even the shores of the neighbouring continent. China complained to the Kyoto authorities and compensation was paid, which the Chinese afterward recorded as tribute from Japan. The period was marked by the rise of powerful *daimyo* in various provinces, who waged relentless warfare with each other, conspicuous among whom were Takeda of Koshiu and Uyesugi of Echizen, while most of the present great families of Japan,



ANCIENT IRON KETTLE AT RENZAN, CHOSEN (DIMENSIONS: 9 FEET 7 INCHES IN DIAMETER; 29 FEET IN CIRCUMFERENCE; 1 INCH THICK)

of a former emperor on the throne, the real emperor, Go-Daigo, having again fled for refuge to the monks at Heiyeizan. A bargain was struck with the deposed emperor to receive the sacred regalia in order to have the Emperor Komyo legally enthroned. Receiving encouragement from sundry loyalists, the ex-emperor escaped from the monastery and issued an edict proclaiming the Ashikagas to be rebels and outlawing them as usurpers. From this time for fifty-six years Japan had two rival emperors, known in history as the North and South Dynasties, producing a state of internecine war that deluged the country with blood and misery. Takauji Ashikaga watched over the imperial interests at Kyoto while his son Yoshinori resided as shogun at Kamakura. In 1392, during the shogunate of Ashikaga Yoshimitsu, the two emperors were reconciled, the Emperor Komiyama coming from Yoshino to Kyoto and handing over the regalia to Go-Komatsu. Constitutional wars had disorganised the government and impoverished the peasantry, while bands of robbers marauded the country. The coast population was given up to piracy, ravaging

such as Shimadzu, Hosokawa, Mori, Tokugawa, Takeda, Maeda, and Sataké, laid the foundation of their power at the same period. Toward the end of this period of political confusion religion was characterised by the dissoluteness of its teachers; and the country suffered from famine and pestilence.

It was on this state of political and moral darkness that there now dawned a light from the West. The first European to reach Japan was a Portuguese named Mendez Pinto who was cast ashore on the Island of Tanegashima, south of Kyushu, while on a voyage from China to the colony at Goa. Pinto was kindly received by the officials and people, according to his own account, and taught them how to make guns and gunpowder, at which they proved apt pupils. This was about the year 1543. After Pinto had finally found his way back to China he recounted his profitable experiences in Japan to his countrymen, who induced him to set out on another expedition to Japan, when he was wrecked on the Luchu Islands. The trade in arms and ammunition having been thus opened with the Portuguese, the latter were not slow to take advantage of it and a

brisk commerce sprang up in that line, the weapons greatly assisting the daimyo in their feuds with one another. In the midst of this trade with the Portuguese came the celebrated missionary Francis Xavier, the disciple of Loyola, who landed at Kgosshima in 1549, having come all the way from Malacca on a Chinese junk with two other Jesuits named de Torres and Fernandez, and one Japanese, who could speak Portuguese and acted as interpreter. Xavier was greatly pleased by the Japanese and praised them as superior to any Jews or infidels he had met. The presence of the foreigners with their firearms soon led to jealousy among the daimyo who sought such advantages, and consequently the missionaries were obliged to move on to Hirado and Nagato, or Choshu, where they established missions. In 1550 Xavier proceeded as far north as Kyoto, in spite of the dangerous and disturbed condition of the country. In the capital he was disappointed to find nothing but confusion and wretchedness in place of the splendour reported by Marco Polo. Xavier sought audience with the emperor and the shogun, but failed on account of the poverty of his appearance which rendered him contemptible. After a stay of some fourteen days, during which he preached in vain to the people on the streets, Xavier returned to Bungo, where he had various controversies with the Buddhist priests, and set out for China in 1551, dying at the mouth of the Canton River. The seed which he introduced into Japan, however, took root and continued to grow, being followed by the labours of succeeding missionaries, so that within twenty years the number of Christians was over 20,000.

AGE OF USURPERS

1573 to 1603

THE second half of the period covering the Japanese Middle Ages forms an important epoch in Japanese annals, especially in regard to the internal changes of the country and the development of Christianity with consequent persecutions. The three great names associated with these movements were those of Nobunaga, Hideyoshi, and Ieyasu. After the devastating wars and consequent misery and defiance of order of the Ashikaga era the country was awaiting a man of iron hand to restore peace and reestablish the social and political fabric; and this man proved to be Oda Nobunaga, of Taira descent, being a great-grandson of Kiyomori. Oda showed great prowess in war and soon added to his already valuable estates, becoming one of the most powerful feudal lords in the Empire. The representatives of the Ashikaga interests which he had at first

espoused, after receiving his assistance, conspired against him, and he deposed the last shogun of that house in 1573, leaving the office vacant until the rise of Tokugawa Ieyasu in 1603. With the arrival of Oda in Kyoto peace and order were restored and regular government established. He built for himself the palace of Nijo in the west of the capital, a building which still remains. Oda Nobunaga honestly attempted to govern the country in the name of the Mikado, but the attitude of the Buddhist priests and the more powerful daimyo prevented him. Feuda went on between Shimadzu of Satsuma and Mori of Yamaguchi, in the south; and between Takeda of Kai and the Hojo interests in the north. Of the five great warriors who sided with Oda, Hideyoshi, Shibata, Ikeda, and Ieyasu attained to wide fame and influence. In order to crush the Buddhist priesthood Oda favoured the Christians, bestowing on them great privileges and giving them land for their churches. In 1571 he despatched forces against the Buddhist strongholds at Heiyeizan and Osaka, reducing them to ashes; and his foremost general, Hideyoshi, he sent against Mori of Yamaguchi. In the height of his power, however, in the year 1582, Oda was assassinated by one of his generals, named Akechi Mitsuhide, in revenge for a slight. Thus in his thirty-ninth year ended the life of the only man who had the courage and intelligence to deal with the refractory daimyo and the degenerate priesthood. His vanity in

setting up his own statue in a shrine for worship and his double dealing in favouring the Christians merely in revenge against the Buddhist priests, no doubt betray a moral weakness that Fate resents. At the time of his death the Christians numbered over 150,000 and their churches more than 200, and the new religion included among its adherents daimyo and men of position. With the exception of the names and character of the deity the new religion did not seem so different from the old, as there were the same rosaries and beads, with all the images, altars, and general paraphernalia of the temple. The foreigners were still favoured chiefly because they brought firearms to the country. The Christians became so powerful that they were able to despatch an embassy to the Pope in 1582, reaching Lisbon in 1584. It was welcomed at Rome by the Church and returned to Japan in 1588, much impressed by the might and power of the Church and the nations of Europe which it represented. After the death of Oda Nobunaga, Hideyoshi returned to the capital, and, with the help of Ieyasu, endeavored to restore order and confidence. He suppressed his opponent, the lord of Shibata in Echizen, improved the plan and fortifications of the capital, and laid the foundation of a great city and castle at Osaka. In 1586 the emperor made him Kwampaku, an office hitherto held only by the Fujiwara family. How, with all his selfishness, shamelessness, and sensuality he could have raised himself from the life of a



FRONT COURTYARD, WITH TRIUMPHAL WAY, PEILING, OR NORTH MAUSOLEUM, MUKDEN, WHERE THE MANCHU EMPERORS WERE BURIED

peasant to the most exalted position in the gift of the throne seems a mystery. He kept on the good side of Ieyasu and had him visit the emperor at Kyoto where high honours were conferred upon him. Hojo of Odawara, however, would not acquiesce in like proceedings, so Hideyoshi received imperial permission to bring Hojo to submission. He set out for Odawara Castle at the head of 170,000 men. The enterprise was crowned with success, Ujimasa Hojo was captured and executed and Hideyoshi and Ieyasu stood supreme in the Kwanto region. At the suggestion of Hideyoshi, Ieyasu now removed his headquarters to Yedo, an insignificant village where Ota Dokwan had built a castle, and where in 1591 the eight provinces of Kwanto presented their compliments to Ieyasu, their new feudal lord, on New Year's Day.

For a long time Hideyoshi had contemplated the invasion of Korea; and now that he had established peace in the Kwanto regions and brought the feudal lords of Yamaguchi and Satsuma to see eye to eye with him, he began to make preparations for the expedition to the peninsular kingdom. By despatching insolent embassies which were rejected by the Korean authorities, he sought pretext for strife; and when his great army of 480,000 men was ready, he made Konishi, a Christian, one of the generals, and the famous warrior, Kato Kiyomasa the other. As there was no love lost between the two they did not work well together; but they landed in Korea, laid waste country, demanding of the Koreans an open road to China, as Germany did through Belgium to France. Meanwhile the Japanese fleet which had been left at Fusan, was defeated by the Koreans, giving the invaded country new courage; while the Japanese had defeated on land not only the Koreans but the Chinese army that had come to their succour. The terms of peace offered by the Japanese were that Korea should cede to Japan five out of her eight southern provinces; that the emperor of China should send one of his daughters to Hideyoshi to wife; that China and Japan should resume former commercial relations; and that both Korea and China should pay an annual tribute to the treasury of Japan. The Chinese replied simply demanding the dismantling of the Japanese fortresses in Korea and the withdrawal of the Japanese troops, which greatly enraged Hideyoshi. One of the trophies brought back by the Japanese troops from Korea was the ears of all the enemies killed in battle, numbering many thousands, salted down for the purpose, as it was too inconvenient to bring over the heads of the victims. These ears were

buried in Kyoto and the grave had a stone monument set up over it, called *Mimidzuka*, or ear-monument, as a memorial of the conquest of Korea. At first Hideyoshi favoured the missionaries, but when he found that they interrupted his agents sent out to collect beautiful girls for his harem, he took a dislike to them and set up a system of persecution against the Christians. In 1587 he

the south were on the side of Hideyori, which Ieyasu did not forget after he became shogun and held the reins of power. Ieyasu entertained serious suspicions of the intentions of Hideyori, and his lieutenant Ishida Mitsunari, against him, and sought occasion to make them show their hand. He ordered the great temple of Buddha at Nara to be reconstructed and commanded Hide-



CHIMPO KINGS' TOMB IN KWAZAN, CHOSEN

issued an edict banishing the Jesuits from the country; and when no ship was found leaving Japan within the prescribed time, he ordered the foreign missionaries to proceed to Hirado to wait an opportunity of sailing. Persecution extended to the native members of the Church who were given the choice of renouncing the new religion or leaving the country. In spite of persecution the Christian forces seemed to grow; and probably persecution would have died down had it not been for the arrival of the Spanish friars from the Philippines, who defied the laws and edicts against the Christians and were ordered to be crucified at Nagasaki, the sentence being rigidly carried out. Exhausted by his dissolute life Hideyoshi was attacked by cholera in 1598 and died in September, obliging his vassals, before his death, to swear fealty to his son Hideyori, especially requesting Ieyasu, lord of the Kwanto regions, to see that his last wishes were fulfilled. After the death of Hideyoshi, however, the various daimyo rallied around Hideyori on the one side and Ieyasu on the other, and it was evident that a conflict would ensue. The Christian daimyo of

Yori to defray the cost, with the hope of thus weakening his finances so that he could not use them in conspiracy against Ieyasu. After the work was completed, Ieyasu found fault with an inscription Hideyori had placed on the temple bell, which he affected to believe wished bad luck for the house of Tokugawa. Mitsunari now summoned the southern daimyo to rally to the support of the son of Hideyoshi; and Ieyasu resolved to lay siege to Osaka Castle as a great point of vantage.

Thus began a war which ended finally in the decisive victory of Ieyasu at the great battle of Sekigahara in October, 1600. On hearing of the victory of Ieyasu most of the great daimyo, both north and south, submitted to him. There was a general redistribution of estates and offices, after which Ieyasu sent his son Hidetada to Kyoto to report to the emperor and to obtain imperial sanction for what had been done. In 1603 Ieyasu was honoured by the emperor with the title of Udaijin, appointed head of the Minamoto clan, and made shogun; after which he received the homage of all the daimyo in his castle at Yedo.

(D) THE TOKUGAWA PERIOD

1600 to 1868

THE ERADICATION OF
CHRISTIANITY

THE establishment of the Tokugawa shogunate brought to Japan a new era, resulting in two hundred fifty years of peace, a state very welcome to the people after so many centuries of strife. Side by side with a further development and consolidation of the feudal system went on an increasing aversion to foreigners and a determination to eradicate the Christian religion. First of all Ieyasu set about reëstablishing peaceful relations with Korea and China, in which he was successful. After this he retired in favour of his son, Hidetada, in the year 1605, to his mansion at Shidzuoka in Suruga, that he might devote his declining days to the elaboration of laws for the nation, though he never ceased to remain the soul of the administration. After his death his body was enshrined in a magnificent temple at Nikko and his name raised among the gods by the emperor. Thus passed away a man of remarkable talent and wisdom, who raised

missionaries to pave the way for her invasion; and a Spanish captain wrecked on the coast of Japan, being subjected to what he deemed unfair treatment, threatened that his king would some day make Japan pay for it. These things led the shogun to make investigation into the history and policy of Spain; and his suspicions of Spanish policy being thereby confirmed, as it seemed to correspond with the story told by the Dutch, he resolved to banish the Spanish missionaries and to suppress their religion. At the time when the persecution began there were as many as 600,000 Christians in the country; and the attitude toward them was cruel in the extreme. At first the persecution took the form of a ban on Christianity and banishment of the foreigners and all who adopted the new religion; but this failing, severer methods were soon resorted to. Most of the native Christians remained true to their profession and died a martyr's death, as did many of the foreign missionaries. The test of loyalty to the Empire was willingness to renounce Christianity by trampling on the crucifix. Rather than do this thousands went to the stake and the cross, some being

foreigners were banished from the country save the Dutch and Chinese who were permitted to live on a small island, called Deshima, at Nagasaki. The Shogun Iyemitsu was still more persistent in enforcing the laws against the Christians, and thousands fled to China, Formosa, and the Philippines, while those left behind had to go to crucifixion or the stake. After suffering such untold horrors for twenty years there was a rising of Christians in Shimabara in Kyushu, when some 30,000 of them were put to the sword. In spite of the severe and cruel measures enforced for the extermination of Christianity it was not wholly accomplished, for when the missionaries returned in modern times, they found some native Christians still at a little place called Urakami near Nagasaki. It is but fair to admit that the behaviour of the foreigners was in many ways sufficient to justify the suspicions of the authorities against them. Many of the Portuguese and Spanish merchants were unprincipled and defiant of law, engaging in vice and slavery, while the history of their countries in Mexico and the Netherlands, as well as the venture of the Spanish armada, tended further to warn the *bakufu* authorities against allowing them any lease of power.

THE LAWS OF IEYASU

THE main aim of the Tokugawa shogunate was the security of the Tokugawa family, its supremacy of power in the State and the maintenance of peace throughout the Empire. To this end Christianity was banished, for safety was supposed to lie in ignorance and the prevention of thought; and certain laws were promulgated clearly establishing between classes their mutual duties to one another and the State. Emoluments and estates were placed in the hands of favourites of the Tokugawa family, whose loyalty was held firm by constant dependence on the Tokugawa shogunate. The proud old princely houses of Satsuma and Choshu had thus to submit to the collective force of the vassals of the shogun; and he placed his vassals and spies in all the strategic points and outposts of the Empire to prevent malcontents taking any advantage. The laws which Ieyasu formulated for this purpose and left to his heirs, known as The Legacy of Ieyasu, held the country in leash for two hundred fifty years, and thereby deserve consideration as an example of mediæval statesmanship. Based on the five universal duties of Confucius, the laws of Ieyasu dealt with relation of subject to sovereign, of serf to lord, child to parents, of wife to husband and of brothers, sister and friends to each other. The family was made the unit of society



ANCIENT ROYAL TOMB NEAR SINGEN, CHOSEN

himself from the position of a peasant to a place of supreme power in the councils of the Empire. His son, Hidetada, held the shogunate to 1623, the most conspicuous acts of his *régime* being the edicts against the Christians. The arrival of the Dutch merchants at Nagasaki led to further suspicions against the Jesuits. The Dutch informed the shogun that Spain had conquered numerous foreign lands, using mis-

dipped head first into boiling sulphur springs until they recanted, which most of them did not do. Mothers went to the flames with their babes in their arms, choosing fire rather than paganism. The churches at the same time were everywhere demolished and their altars scattered to the winds. In 1617 foreign commerce was restricted to Nagasaki and all Japanese were forbidden to leave the country on pain of death. In 1624 all



FIGURE OF BUDDHA AT MYOKISSHO, KONGO-SAN, CHOSEN,
HEWN IN SOLID ROCK



SOME OF THE SEVEN BUDDHIST IMAGES OF KINZAN-JI,
NEAR KINTEI, CHOSEN

and the foundation of the State. As the laws were not published but made simply for the guidance of the government, the people were held responsible of duties of which they were largely ignorant, knowledge of the law, as in ancient Greece, being the right only of the privileged. The code of Ieyasu implied that virtue consisted in obedience to superiors, and morality lay in assiduously observing the law. Life is guided by custom rather than by right; and as the inferior is absolutely in the hands of the superior he has no rights; and consequently there is no reference to contract, personal property, navigation, or trade; but much emphasis is laid on punishment for crime, and on legal relations between classes on etiquette, rank, precedence, administration, and government. Private revenge was recognised and provided for; an eye for an eye and a tooth for a tooth. Society was divided into four classes: the imperial family, the court nobles, the feudal lords, and the common people. Advantage was taken of belief in the divinity of the emperor to keep the sovereign strictly secluded from the

people, that he might know nothing of their condition and take no inconvenient interest in public affairs. Through the course of centuries this policy, started by the Fujiwara, developed by the Taira and Minamoto clans and brought to its logical conclusion under the Tokugawa shoguns, caused the court and the court nobility to lose their influence in the State until finally all power was in the hands of the military chieftains of which the shogun was now the head. The daimyo, of which there were more than two hundred fifty, had to have mansions in the shogun's capital where they were obliged to reside with their families at least six months out of each year, presenting themselves annually to take the oath of homage before the shogun; and when they left Yedo they had to leave their wives and families behind as hostages. Each daimyo was like a sovereign within his own estates, having an army of samurai and soldiers to do his bidding, as well as endless numbers of petty officials; while all the daimyo were bound by pledges of fealty to the shogun, through whom alone they could approach the em-

peror deep in the shadow at Kyoto. Outside the pale were the toiling millions living in ignorance and poverty.

FOREIGN RELATIONS OF THE TOKUGAWA ERA

About the year 1600 Dutch ships first appeared in the waters of Japan; and from that time onward ships of the Dutch East India Company began to cultivate a thriving trade, being welcomed in place of the banished Spanish and Portuguese of whom they were the avowed enemies. Their activities, however, were confined to the Island of Deshima at Nagasaki, the only open port after the edict excluding foreigners. On one of these Dutch ships came the Englishman, Will Adams, who was so highly thought of that he was detained in the country as foreign adviser to the shogun who heaped upon him wealth and honours until his death in 1620 when a fine monument was erected to his memory. Ships from England under the auspices of the East India Company came to Japan in 1613; and a factory, or trade station, was opened at Hirado. Captain

John Saris brought a letter from King James I, and was warmly received, being granted a charter to trade where he pleased on equal terms with the Dutch. Leaving Captain Cocks in charge, Saris returned to England to report his experiences; but owing to the jealousy of the Dutch the British factory was not a success and had to be given up. English traders did not venture to the coasts of Japan again until 1673 when they were again unsuccessful on account of the war with Holland; but Captains Beechy and Broughton deserve mention as having explored the northern coasts of Japan later, while the French mariner, La Perouse, circumnavigated the northern coasts, discovering the straits named after him, and Vries the Island of Oshima. Russia also came into unsuccessful contact with Japan during this period. All trade was confined to Deshima; and the annual turnover is reported to have totalled as much as £660,000. Enormous quantities of gold were taken out of the country every year, the Japanese not realising the value of their coin, which was almost pure; but the shogun placed a ban on exports of gold later. The chief of the Dutch factory at Deshima had to present himself before the shogun once a year with presents, making the journey to Yedo in state like a daimyo. Thus for one hundred fifty years the Dutch colony at Nagasaki was the port of entry for Western knowledge to the Empire of Japan; and as the Dutch always had men of learning among them, such as Kaempfer and von Siebold, Western science, medicine, art, and letters found their way into the country, many of the young Japanese learning the Dutch language and mastering works written in Holland.

REOPENING OF JAPAN

In process of time succeeding shoguns ceased to inherit the political capacity and energy of Ieyasu and the machinery of state was left to officials and their officers until the shogun became a mere administrative cipher like the sovereign. Relieved of all anxiety as to the security and permanency of their dynasty the shoguns devoted their time to lives of ease and pleasure. Meanwhile the wrongs and injustices suffered by great families like the Satsuma and the Choshu clans, through several generations, had not been forgotten, and they now only awaited a favourable moment to assert their old liberties. The opportunity came with the arrival of the American fleet under Commodore Perry in Yedo Bay in 1853, bringing a letter from President Fillmore requesting a treaty of amity with Japan. American whalers cast ashore in Japan had been cruelly treated, often murdered, and the

American government was determined to put a stop to it; which accounts for Perry's persistence in refusing to return home without a treaty. He delivered the document and sailed away, promising to return in a year for an answer, which he did, ultimately obtaining a treaty guaranteeing safety to sailors of his country and safe anchorage for American ships in certain harbours. The arrival of the American fleet created consternation throughout Japan. For the first time every one realised the military impotency of the nation and the uselessness of opposing foreigners. The treaty obtained by Perry was amplified by Townsend Harris who came as the first consul-general of the United States; and in 1859 similar treaties were secured by Great Britain and France. Settlements of foreigners were now established at Nagasaki, Yokohama, and Hakodate in which trade was aggressively carried on; and thus the portals of the long-secluded land of the gods had been broken and the foreigner free to occupy the sacred soil of Nippon. When Harris requested that an American minister should be allowed to reside in Yedo the shogun was more puzzled than ever, and had to refer the matter to the Imperial Court at Kyoto, which showed the great families how helpless was the shogunate in the face of such a situation. In the midst of divided counsel at Kyoto the shogun granted the foreign petition, creating a tremendous agitation against foreigners and especially against the shogunate. The old shogun died; and, as a youth was appointed to succeed him, affairs of state were in the hands of the great Prime Minister Ii-Kamon, who had the opponents of the *bakufu* and its policy arrested and banished, and some of them executed; which aroused the anger of the nation still further, and the prime minister was assassinated. In the ensuing commotion government was set at nought and lawlessness prevailed, the lives of foreigners being very insecure. The situation then became very complicated. On the one hand were many foreigners pouring into the country, demanding treaty rights; and on the other was the emperor and his friends calling for the expulsion of the barbarians. Europeans were ruthlessly murdered in the streets, the British legation at Yedo was twice attacked by fanatics eager to slay those within, two Englishmen were wounded and the secretary of the American legation was killed. The emperor ordered an assembly of powerful daimyo to convene in Yedo to discuss the situation; and the Prince of Satsuma was proceeding thither when his procession met an Englishman named Richardson at Kanagawa. The Englishman failed to dismount in

accordance with the custom and was immediately despatched by the irate samurai of Satsuma. For this offence the *bakufu* had to pay £100,000; and after having the city of Kagoshima bombarded by a British fleet the Prince of Satsuma agreed to pay an indemnity of £25,000 and apologise to the British government. Choshu then flung down the gauntlet of defiance in firing on foreign ships passing the Straits of Shimonoseki, when his forts were bombarded in turn by a combined fleet of American, Dutch, French, and British men-of-war. It soon became apparent to all that foreign ships and foreign subjects could not be insulted with impunity. Satsuma and Choshu as well as the shogun having learned bitter lessons, it became clear to all that the proposal to banish foreigners was an impossible one; while at the same time the existing government of the country was obviously incompetent to deal with the situation.

FALL OF THE SHOGUNATE

In 1867 the Emperor Komei died and the young Prince Mutsuhito, aged seventeen, ascended the throne. Leaders everywhere began to see now that what the nation most needed was not the expulsion of foreigners but a new government. The lords of Satsuma, Choshu, and Hizen now resolved to challenge the authority of the shogun and declare for direct imperial rule. To this end they presented a memorial to the shogun, to which the emperor subscribed; and, to the surprise of all, the shogun agreeably acquiesced. The shogun, Tokugawa Yoshinobu, who belonged to the great clan of Mito, had unbounded respect for the imperial house, and his erudition had taught him that the shogunate was anomalous from an imperial point of view. So he readily handed in his resignation to the emperor, though he still had his numerous vassals behind him and did not desire to come under the dominion of Satsuma and Choshu who, he knew, bore him no good will. But no sooner did the emperor get all power in his own hands than he submitted to the advice of Satsuma and Choshu, had the Aizu troops which had for years guarded the imperial palace removed, and men of Satsuma put in their places, to the great indignation of the Tokugawa family and all its friends. Tokugawa Yoshinobu, the ex-shogun, while on his way to Kyoto was attacked by the imperial troops under Satsuma and defeated, and thus the revolution was accomplished with very little shedding of blood. The imperial government was now supreme; but matters were not yet well, for the feeling against foreigners still ran high. A British embassy under Sir Harry Parkes, while on its way to an imperial audience at Kyoto, was attacked by samurai, and ten

French sailors and an officer were murdered at Sakai. The difficulty was that most of the officials of the new government were ignorant of Western countries; and as they had promised those who assisted them in overthrowing the shogunate that they would expel the foreigner, they now had no easy rôle to fill, knowing that they could not fulfil their promises. The three classes, nobles, samurai, and serfs, had no conception of the duties now devolving upon them. The nobles knew nothing save to rule, the samurai nothing save to fight, and the people had no idea of the rights of free citizens. Indeed, few statesmen have ever had so difficult a task as that which confronted the young emperor's advisers; and it is remarkable how successfully they carried it to a triumphant conclusion.

(E) THE ERA OF MEIJI

1868 to 1914

EARLY REFORMS

As Yedo had long been the seat of executive government it was decided to continue it as such; and so the name was changed to Tokyo, or Eastern Capital, and the imperial residence was removed thither and the emperor expected to take an active share in the new imperial administration. Instead of attempting to drive out the foreigners the new régime proclaimed the intention of encouraging intercourse with Western nations, and that European science and civilisation should be introduced into Japan. The sacrifices which such changes demanded were indeed great. The shogun had sacrificed his power and prestige; the emperor had emerged from his ease and retirement; it was now for the nobles and their samurai to face the great sacrifices entailed in the abolition of feudalism. This was more than some of the daimyo had expected. They wanted the imperial restoration, but they did not see why otherwise the feudal régime should not continue. The clans of Satsuma and Choshu merely wanted the place formerly occupied by the Tokugawa. But the pressure from abroad soon led them to see that Japan's safety lay in united counsels, and they too must be ready for the self-renunciation displayed by the shogun. The young reformers finally succeeded in persuading the daimyo of Satsuma, Choshu, Tosa, and Hizen, four of the most powerful feudal chiefs in the Empire, to surrender their fiefs to the emperor, a sacrifice of remarkable magnanimity indeed. More than two hundred fifty feudal lords followed their example; and thus in a moment many separate governments passed into one, its center Tokyo, and the emperor its head. The daimyo, at first left as governors in their several domains, in 1871 were deprived of this office and all taxes were

ordered to be paid into the central treasury. All officials were thenceforth to be appointed by the central government, the feudal lords were to retain one-tenth of their former income and make Tokyo their place of residence, while the samurai were to retain their pensions, the latter after two years being commuted by the government. The spirit in which these sacrifices were undertaken and carried out must form a model of loyalty for all time. All class privileges and disabilities were now abolished; permission was given to Japanese to go abroad for study; the foundation was laid for a national army recruited by conscription, and steps taken for the creation of a navy. Carefully selected teachers were brought from Western lands to direct the new education, England supplying instructors in railway, telegraph, engineering, mint, and naval education; the United States in postal and educational

work; Germany in medical science, and France in military science. The main aim of the new government was to fit the people for the privileges of constitutional government when the time should arrive for its inauguration. Japan must be raised to the status of a great military power able to secure immunity against foreign aggression and commanding a place in the councils of the world. The government should be supported by increasing the country's industrial capacity and development of foreign trade. Then would come a realisation of Japan's main ideals: the abolition of extritoriality and her assumption of supremacy in East Asia.

FOREIGN RELATIONS

THE treaties which the shogun's government had concluded with foreign powers exempted Europeans resident in Japan from the jurisdiction of Japanese law and authority, leaving them subject to their own law as administered by their consular courts. The Japanese soon learned that this system was derogatory to their dignity as an independent nation, and they were determined to have the stigma removed. The peninsula of Korea, which had interested Japan from ancient times, now showed signs of weakness and Japan feared it might fall into the hands of some foreign power that would menace the safety of the Empire. Saigo, one of the greatest heroes of the wars of the Restoration, favoured stern measures in Korea; and when the government ignored his opinions, he withdrew from active participation in its affairs to his home in Kagoshima where he started a military school that was interpreted as a scheme to educate rebels against the government. This gave rise to the Satsuma Rebellion in 1878 when some 30,000 lives were lost in battles between the government and rebel troops, Saigo committing suicide on being defeated. Japan was finally obliged to take active interest in the affairs of Korea, however, and to insist on similar reforms to her own, if that country was to be saved from foreign aggression. Korea rejected these overtures and was backed by China, leading to the China-Japan War in 1894-5 in which Japan was victorious. Ten years later she had to cross swords with Russia on the same question, driving the aggressor out of Korea and herself eventually annexing the peninsula, August, 1910. Japan's claim to have the disability of extritoriality removed was conceded by the foreign powers in July, 1899, when she recovered her judicial autonomy; but she did not recover her tariff autonomy until 1894. From this time relations between Great Britain and Japan began to grow increasingly intimate; and when, after the war with China, Germany led France and



CONSULTING THE FORTUNE STICK

Russia in ousting Japan from the fruits of her victories in Manchuria, Great Britain refused to be a party to it, the two nations were drawn still closer together, until 1902 when they entered into a formal alliance for the maintenance of the integrity of China and mutual protection in Asia. The Anglo-Japanese Alliance was renewed with some modifications in 1911 and still forms, as it long may do, the foundation of Japan's foreign policy. It was in accordance with this policy that Japan joined Great Britain in the war with Germany, attacking and capturing the fortress of Tsingtau and occupying German possessions in the South Seas in 1914-5. Relations with the United States have been disturbed over questions of immigration and rights of land ownership; but, although these problems are as yet unsettled, the invariable good temper of both countries promises a near solution. By the so-called "Gentleman's Agreement" with America in 1908 Japan consented to limit the number of her immigrant labourers to the United States; and a memorandum had been signed with Canada to the same effect in 1907. Japan formed a treaty of alliance with Russia in 1916, establishing relations similar to those with Great Britain in the Anglo-Japanese Alliance, but in no sense menacing the latter; and new agreements were entered into with China in the same year. Thus by her own efforts, backed by the sympathy of the English-speaking peoples, Japan has obtained the recognition of all the world-powers, and to-day occupies a place second to none in the comity of nations.

MODERN JAPAN

THOUGH the fathers of the Meiji Restoration looked forward in some measure to the observance of constitutional principles, and a constitution was conceded by the emperor and eventually promulgated in 1889, and a parliament opened in 1890, Japan is still ruled by an oligarchy of talented men, known as Genro, or Elder Statesmen, representing the great clans, some of whom had a hand in bringing about the restoration of imperial rule, and some of whom are of a later generation. The unwritten system is indeed not unlike that which prevailed in Japan before the development of feudalism and military government. It is, however, meeting with increasing popular objection as the years go on; and the contest between bureaucracy and democracy has still to be fought out. The bureaucracy, nevertheless, has a better grasp of foreign affairs than the rising and more ignorant and inexperienced democracy, and, therefore, has often saved the day when the Empire would otherwise have been endangered. But so long as out of a population of nearly 60,000,000 in Japan proper, no more than 1,600,000 are entitled to the franchise, the impossibility of popular or liberal government remains.

In some respects it is but natural that Japanese affairs should still be in the hands of those and their successors who brought about the downfall of the shogunate, the restoration of imperial rule and the modernisation of the Empire. Of the forty-five or more patriotic youths who braved death to bring about the Restoration, twelve were

given a supreme place as Genro, namely, Saigo, Okubo, Kido, Ito, Inouye, Oyama, Soejima, Iwakura Sanjo, Matsukata, Yamagata, and Itagaki, of whom the last three alone are still living, but Count Itagaki has retired from politics. On his recent retirement from the premiership Marquis Okuma was added to the list of Elder Statesmen, and doubtless Marquis Saionji will become one also. Unhampered by precedents and dealing with a people accustomed to autocracy the Elder Statesmen, the Privy Council, and the Emperor as supreme, have little difficulty in manipulating state affairs after their own will, or as circumstances dictate. The Upper and Lower Houses of the Imperial Diet are subordinate to the Imperial advisers and can be dissolved at their instance on proving recalcitrant. The Imperial Diet, however, is given the general management of domestic affairs; always, however, under the supervising eye of the powers behind the scene.

Constitutionalism, however, is making some progress; and when one realises all that the bureaucratic system has done for Japan in bringing about reforms without resorting to radical measures, there should be nothing but admiration for its achievements and patience with its anachronisms. It has created and promoted an army and navy of matchless efficiency; and under its paternal auspices national industry and trade have developed beyond a nascent stage and now bid fair to rival all competitors in Far Eastern markets. Laws incorporating the principles of modern civilisation and justice have been codified and enacted; the rights of the people are recognised if not always allowed. The Lunar calendar was replaced by the Western calendar in 1873; and in the same year military conscription was introduced. The ban on Christianity was removed in that year and religion made free, though school children are still taken by their teachers to the national or communal shrines to render homage to their ancestors. In the same year an official mission consisting of Kido, Okubo, and Iwakura proceeded to America and Europe to study the situation there and glean suggestions for national reform; while the visit of Ito in 1882 further prepared the way for more constitutional methods of procedure. After he had duly drafted the constitution a cabinet was organised, a constitution promulgated and the Diet formally opened. The grave doubts entertained as to the success of a representative system of government at its inauguration have not been justified, simply for the reason that it is not representative in any sense that would seriously threaten the prerogatives of the bureaucracy.



THE WAYSIDE FORTUNE TELLER



THE PRAYER WHEEL

During the twenty-six years of its history the Imperial Diet has been dissolved numerous times, with eighteen changes of cabinet and twelve general elections. In 1910 the election laws were revised, extending the franchise to those paying a minimum tax of ten yen a year, whereas before the minimum was fifteen yen; which, of course, was

not any great extension; and the system of signed ballots was discontinued. In July, 1912, the Emperor Mutsuhito, posthumously known as Meiji Tenno, passed away; and His Majesty, the Emperor Yoshihito, 122d in the dynasty, ascended the throne, naming the new era, Taisho, or the Era of Great Righteousness, succeeding the last era which

is known as Meiji, or the Era of Enlightenment.

The forty-five years comprising the reign of Meiji Tenno were unparalleled in the history of the nation's progress. Among the innumerable reforms of the period three stand out as paramount: the promulgation of the Imperial Constitution, including the establishment of the Imperial Diet, with local self-government in prefectures, counties, cities, towns, and villages; the codification of national law to take the place of mere custom and ancestral prestige, paving the way for the last but not least great reform, the revision of foreign treaties, and the abolition of extraterritoriality. Whether the Taisho era will be able to maintain the glory of the former period remains to be seen. The weakness of the nation is its disposition to disputation and lack of great leadership, rendered more complex by clan precedence and prejudice. Education, which was at first established on American lines, has since diverged into a German system, very narrow and formal, with more attention to the acquirement of facts and ideas than to any practical application of them. The whole country is still in a state of transition between old and new, in which now one side has the upper hand and now the other, often with amusing eccentricities. But the main policy of Japan is to *adapt* foreign ways while adopting them: in other words, to Japanese everything, even the truth itself. Signs are not wanting, however, that every phase of Japanese society, civilisation and polity having a no more stable basis than mere prejudice, superstition, or fancy, may suffer a rude upheaval as time proceeds. Modern science is undermining many of the more sacred and treasured traditions of the nation and pointing to practical efficiency under altruistic principles as the more certain way to permanent progress.

Should Japan, in her ambition to be the moral, intellectual, and political torch of East Asia and the arbiter of Oriental destiny, ignore these signs of the times, her future can only be vague and uncertain. But the Japanese are a brave, industrious, and intelligent people; and if they are wisely led, or are not hindered in leading themselves, Japan will have little difficulty in becoming what she has long desired, the Great Britain of the East.



MAKING OBSERVATIONS DURING ARMY MANŒUVRES, 1917

IV. THE ARMY

ARMY OF OLD JAPAN—EVOLUTION OF A MODERN ARMY—RECRUITING—ARMY ORGANISATION —MOBILISATION AND EQUIPMENT—ARMY FINANCE

THE Japanese must be accounted warriors from the days of their first appearance as conquerors of the isles of Nippon; and consistently the first thousand years of their history in settlement of the archipelago may be regarded as largely a period of strife, either with opposing aborigines or with succeeding migrations from the continent. That they were skilled in the arts of war there is no doubt, since they appear to have had small difficulty in enforcing an occupation of the land, the southerners under Jimmu Tenno proving the more dauntless and aggressive of the various tribes. It must be assumed that most of the military tactics of old Japan had their origin in China, whence the nation derived all its other arts. In the national records of ancient matters one reads that in the year 760 A. D. soldiers were sent to Kyushu to study the art of warfare under a military instructor named Kibi Makibi, who in turn had made a study of the science of tactics in China, the lessons learned being taken chiefly from books prepared by Chinese strategists. The imperial court usually kept a teacher of Chinese strategy; and there is mention of the custom of ascertaining the

whereabouts of enemy troops by the behaviour of birds, especially wild geese, by means of which in the past enemies had been detected and defeated. This scrap of history is quite consistent with Japanese tradition that the race descended from warriors who became the ancestors of great military families, most prominent among whom was the imperial family itself, tradition asserting that the Empress Jingō in 200 A. D. led an expedition in person to Korea to subdue refractory kingdoms there. During the sixth and seventh centuries there appears to have been much attention devoted to the question of national defence, and guards of the court and of the national frontiers were established. In 661 A. D. it is said that the Emperor Tenchi issued instructions for regulating the national army, in preparation for an encounter with China. In 701 it seems that the imperial forces were divided into corps, each consisting of a thousand soldiers; and at the same time a cavalry section was organised, and all the court families were obliged to lend themselves to the movement. Under the Emperor Konin in 780 A. D. conscription took a definite form, when every able-bodied man was compelled to fight, the

incompetent being left to work the land. From this time began that military class-distinction based on fighting quality, which has ever since characterised the Japanese. The military power thus created brought about a long period of peace, which in turn resulted in luxurious effeminacy that reacted unfavourably on the nation. In many places defence gave place to plunder and rebellion, and the integrity of the nation could only be restored and upheld by the military class. With the rise of great feudal families the army became decentralised, and for a time military power continued to be associated with the Minamoto and the Taira families. The long dissension between these great military clans kept the country in intermittent strife for centuries; and finally with the triumph of the Minamoto clan and its establishment of military government at Kamakura, the indomitable fighting spirit was conserved and handed on to future generations.

ARMY OF OLD JAPAN

THESE extended periods of ancient warfare were for the most part under the auspices of Chinese methods of fighting, though we may

be sure such sturdy warriors as the Japanese had early begun to develop their own devices. Up to the ninth century it was a principle of Japanese tactics to attack always at night or early in the morning, which well suited the national disposition and temperament. This practice was undoubtedly continued all through the civil wars of the eleventh, twelfth, and thirteenth centuries. It was indeed seldom that forces of any considerable strength met on the open plains or even in valleys, as the native warrior never acquitted himself so well under such circumstances. In the warfare of ancient times battles were sometimes decided by contests of individual prowess, not unlike what one sees traces of in Britain during the age of chivalry. Somewhat after the manner of Goliath a Japanese general would stalk out in front of his forces and challenge a representative of the enemy to single combat. The challenging hero stood erect between the opposing hosts, and in stentorian tones recited his lineage and military achievements: it was the only moment in a samurai's life when he was free to boast, demanding a man of equal family and martial attainments on the enemy's side to be pitted against him. As a rule the challenge was promptly accepted. In a similar manner a hero from the enemy's ranks would step forward and proclaim in a loud voice his family history and his own deeds of prowess on the field of battle. There stood the two heroes face to face amid the silence of intense excitement and suspense of the assembled troops. At once the duel began. It was nothing if not fierce, a battle to the death. One of the combatants fallen, another was ready to step in, and after two or three such contests the spirit of the on-lookers was up and the two armies closed in on one another with fearful carnage. It was seldom, however, that in such battles the entire forces on both sides participated, as the strategists preferred to depend on a night attack for the final result.

Through the Middle Ages two schools of tacticians developed in Japan, chiefly under the impetus of the civil wars already alluded to. The one was known as the Echigo system, of which the celebrated warrior, Uyesugi Kenshin, was the exponent; and the other was called the Koshu method, elaborated by one of the most famous enemies of Kenshin, named Takeda Shingen. The Echigo tactics involved a rapid movement of troops and the springing of unheard-of surprises on the enemy, as may be seen from a careful study of the plan adopted at the noted battle of Kawanakajima. The Koshu tacticians, on the other hand, aimed at placing their troops in strategic positions, and insisted on pressing a steady frontal attack with a fight

to the finish. The latter way came to be regarded by the majority of soldiers as the more scientific, and for a considerable time it prevailed among the leading clansmen-at-arms. Succeeding warriors of renown further elaborated the Koshu system, each giving it his own name; and so we have mention of the Obata tactics, the Kagemori tactics, the Hojo Ujimasa method, and the popular tactics of Yamaga Soko.

Of course the introduction of guns and modern weapons completely changed the army system of old Japan. The bowman and the lancer had small chance before the Western musket and cannon. The introduction of the new methods obliged a complete rearrangement of the line of battle. The musketeers were now placed in front, with the archers behind and the spearmen in the rear, each under a special officer. The muskets were discharged, the bowmen delivered their shafts and emptied their quivers, and the spearmen then closed in on the struggling forces, while the musketeers and archers prepared for a second onslaught. These European ideas of military science came with the arms and ammunition which the Portuguese and Spanish traders brought to Japan in the middle of the sixteenth century. The first firearm ever seen in the country was a musket presented to the daimyo of Higo by a Portuguese merchant in the year 1551. It was not, however, until 1660 that the daimyo seriously determined on the use of Western firearms, and then foreign instructors were engaged. In that year Hojo Masafusa, a celebrated warrior of the day, took lessons in military tactics and the use of Western war weapons from a Dutch officer, special emphasis being laid on the use of cannon. Some time later the governor of Nagasaki brought with him to Osaka and Yedo a Dutchman skilled in the use of Western implements of war. When the foreigner saw the walls of Osaka Castle, the Japanese expected him to be much impressed by their impregnability; but he only laughed and said "bom-bom," as the Japanese accounts have it, which greatly puzzled his hearers and the great man whose guest he was. The governor finally learned from the Dutchman his meaning, which proved to be that the Europeans had a weapon which would destroy the greatest castle in Japan with a few shots. The Japanese were so much impressed by what they heard of cannon that they set about a study of ordnance and soon equipped themselves with big guns of their own. Thus the military men of Nagasaki, being more in touch with Europeans than the officers of other fiefs, were the first to realise the great importance of more modern military equipment, and memorialised the Government to

that effect in 1818, asking also that warships be constructed for coast defence purposes and that existing castles be replaced by more impregnable fortresses. Shuhan Takashima, of Nagasaki, for his presumption in thus daring to instruct the shogunate, was cast into prison; but the invasion of the Kurile Islands by Russia and the increasing visitations by foreign warships soon showed the authorities that something should be done for national defence. Some time later a young officer named Enomoto Buyo, afterward destined to play an important part in the nation's history, went to Holland to study naval and military science, while Count Katsu took lessons from Dutch officers at Nagasaki. Such was about the sum total of Japan's knowledge of modern war at the beginning of the Meiji period, though there no doubt had been more of experiment and progress than is recorded, as may be seen from evidence still extant. In Nagasaki, for example, the writer saw set up as a monument or ancient relic on the water front a huge iron ball, more than two feet in diameter. It looked like an ancient cannon ball, except that the past has afforded no gun of sufficient calibre to receive it. No reliable account of its history could be obtained, but the most likely story is worth repeating. It is said that some military genius of old Japan conceived the idea of defending the port from foreign ships by excavating a deep hole in the side of a lofty hill, the hole lined with heavy timber to form a sort of howitzer gun, which could be charged with powder and then loaded with the heavy ball. The enemy would be driven to a certain spot in the harbour where the angle of the gun would throw or drop the huge ball, thus penetrating the enemy's deck and even bottom. Be the story a joke or not, it is the only way found to account for the existence of the huge iron ball which must have been much larger centuries ago, as it is eaten deeply by rust.

As to recruiting, it may be said that after the army decentralisation caused by the rise of the feudal system, every daimyo had his own military organisation; but with most of them it was the rule to take one-fourth of all the men between the ages of twenty and forty for training as soldiers, while the other three-fourths of this class were obliged to provide themselves with armour and weapons so as to be in readiness when called up for war in emergency. As the army was then constituted, fifty men formed a band, and five hundred men a company, either infantry or cavalry, each with its leader or captain. Two such companies were a corps; and troops numbering twenty thousand had one general, one lieutenant-general, and two commissioned officers. This system was kept up

until the tenth century; but as the daimyo became more and more independent they often followed their own devices, until ultimately all semblance of military uniformity was lost. The chief weapons used in war were the bow and arrow, the spear and a long spear like a halberd, with shields of two sizes for defence, a small one for fighting and a large one when encamping. These large shields were used to form a wall between an army encampment and a sneaking enemy. Much more could be said about the uses of the various weapons of war used in old Japan, but lack of space forbids. The great war museum at Kudan in Tokyo will afford those interested any information desired on this score.

EVOLUTION OF A MODERN ARMY

WITH the abdication of the shogun in 1868 the supreme command over all the naval and military forces of the Empire reverted to the Emperor. The expeditious manner in which the men of Satsuma and Choshu overthrew the opponents of the new *régime* showed that even at that time Japan possessed warriors of no mean skill and prowess. The Naval and Military Bureau organised in 1868 soon evolved into the Bureau of National Defence, which in time became the War Office. As the new national army consisted of the various heterogeneous forces formerly under command of the feudal lords, it represented anything but a mobile unit of defence; and so the French military system was at first adopted with the hope of producing some show of uniformity and cohesion. Regular bodies of infantry, cavalry, artillery, and engineering corps were organised, including an Imperial Bodyguard. A garrison was stationed in Tokyo for the protection of the northern provinces, another in Osaka for the security of the western provinces, while other garrison detachments were posted at certain strategic points. Thus in a remarkably short time great improvements were brought about in the military system of the country. With the abolition of feudalism, the disappearance of clan troops and the introduction of a national conscription system in 1871 a most drastic transformation was accomplished. The military profession which for centuries had been a monopoly of the samurai, was flung open to every male citizen of the Empire irrespective of class or clan. In 1873 the nation was divided into six military districts, with centres at Sendai, Tokyo, Nagoya, Osaka, Hiroshima, and Kumamoto, at all of which garrisons were stationed. The men recruited by conscription went into battle with the clan troops for the first time in the Satsuma Rebellion of 1877, and they proved themselves equal in every way to the veteran soldiers of the feudal days, beside whom many



A TRIUMPHAL ARCH FOR THE VICTORIOUS ARMY OF TSINGTAO

of them now fought. In 1878 the War Office was reorganised with the aim of further improving the military organisation of the country, a general staff was appointed for the supervision of national defence as well as strategy, and a superintending inspector's office was established for general military inspection and improvement of ordnance.

From the year 1882 onward Japan began to realise more and more the necessity of stronger armaments if a balance of power was to be maintained in East Asia; and from that time her military forces have been augmented year by year. The nation's system of military command, her military schools, army organisation, training, accounts, sanitation,

and all other essential functions were completely remodeled, chiefly after the German system, as that country had in Japan's opinion proved superior to France in the Franco-Prussian War. In 1884 Generals Oyama, Kawakami, and Katsura went to Europe to make a thorough study of the Prussian military system, and brought back with them a German officer, General Mickel, who put the Japanese army through its Prussian drill, and was the tutor of most of the Japanese army officers of to-day. As time passed it became increasingly evident to Japan that she must concentrate expenditure on means of national defence and offence. Indeed, everything was directed toward that great

military effort which culminated in the war with China in 1895. For the previous ten years army reorganisation had been steadily and thoroughly proceeding under the direction of German instruction. A military staff college had been established, the military academies were extended, and the army medical college was improved. Non-commissioned officers were trained to qualify for commissions and the whole system of uniform and drill was revised. In 1888 garrisons were organised as units, complete with infantry, cavalry, artillery, railway corps, and colonial militia, ready, if need be, for service overseas. By 1893 Japan had established 16 military schools, attended by 2,602 students with hundreds of thousands of young recruits under drill; and in 1894 she was ready to oppose China with an army of more than 240,000 trained men, with 6,495 irregulars and 100,000 coolies. Further reforms were introduced during the war with a view to making the army more mobile and to defend more efficiently the outposts of the Empire. Moreover, Japan's association with the European troops during the Boxer trouble in China in 1900 gave her many new ideas concerning ammunition and armaments; and improvement and expansion of the imperial army went on steadily up to the war with Russia, the results of which we know.

After the Russo-Japanese War the military leaders of Japan became deeply impressed with the need of further army expansion; and Prince Yamagata memorialised the Throne suggesting that the armed forces of the nation should be increased to twenty-five divisions and the navy to two squadrons of eight dreadnoughts and four battle-cruisers each, with cruiser squadrons and ample flotillas to match. The Emperor quite agreed with the suggestion and the military authorities had only to await the necessary funds to carry the new programme into effect. The army that opposed and triumphed over Russia consisted of thirteen divisions, four other divisions having been provisionally organised during the war; but in 1907, two years after the restoration of peace, we find the Japanese army with six new divisions fully organised, making a total army strength of nineteen divisions, or 100,000 more men than before. At the time of Japan's conflict with Russia her available military forces were 600,000 fighting men: two years after the war these had expanded to some 2,000,000 men. In 1914 the Government sanctioned the addition of two more army divisions, to be stationed in Korea, one of which has already been organised, so that Japan's army strength at present consists of twenty divisions.

Here the question naturally arises as to why Japan is so intent on military expansion.

Before the European war her hypothetic objective was undoubtedly Russia, as she had the conviction that the northern power was some day sure to return to retrieve her losses and humiliation in Manchuria, and the Japanese army should be of sufficient strength to discourage this. Japan's interests in Manchuria and China must be guarded at all costs. During the European war, however, Japan and Russia arrived at a special understanding as to mutual spheres of interest in China, and now Japan's potential objective is supposed to be across the Pacific, should forces from that direction interfere with Japan's progress in China. Thus naval and armament expansion goes on to the full limit of Japan's financial capacity.

RECRUITING

IN Japan military service is personal, universal, and obligatory upon every citizen between the ages of seventeen and forty. Out of a population of some 57,000,000 in Japan proper the number of youths who annually reach the age of conscription is about 450,000; but since no more than about 260,000 of these are found physically fit for army service the task of increasing the military forces of the nation to twenty-five divisions is not so easy. The most common causes of failure to qualify for army service are venereal diseases and the eye affection known as trachoma, the next most common defect being low stature or general debility. Defective physique proved most common in the years when those born during the wars with China and Russia came of age. The number of Japanese recruits above 5 feet 6 inches in stature does not number more than 11,000 a year, while more than 50,000 are less than 5 feet. The number of recruits above 5.3 feet in stature is about 323 per 1,000. The military authorities report the eagerness with which recruits enter the army, but desertions number about 1,000 a year, mostly privates, 38 per cent of which are said to be due to dislike of military service and the rest to cruelty. The penalties for desertion are so severe, however, that it would be a mistake to estimate the popularity of the service by the number remaining loyal to it. One frequently hears of cases where the body has been mutilated so as to prevent being conscripted, and soldiers are said to commit suicide rather than meet the trials to be endured. The custom of drilling and marching soldiers in the hottest weather results in frequent cases of sunstroke and death, and indicates a desire to weed out of the army all unable to endure such strain, however cruel the process. Of the 260,000 men annually qualifying for conscription about 120,000 are drafted and 150,000 left

as reserves to be called up any time. The numbers above indicated can not be enlarged at present without lowering the general efficiency of the service. The conscript is called up during the year which follows that in which he reaches the age of twenty. Recruits are divided into three grades after being drafted, and the number desired is drawn by lot from the highest grade. The only exemptions allowed under the conscription law are for an only son where the parent is over sixty years of age and incompetent to support himself or herself. Lads registered in schools of certain grades may have military service postponed until finishing their studies, but the age of postponement must not exceed twenty-eight. There are reports of youths registering at schools merely to escape conscription, even though they do not attend classes. There is also a service of one year for scholars and those of the upper class, who, after putting in the year in sections, are registered in the reserve service with the rank of non-commissioned officer. These have to pay their own expenses while in barracks. Recruits drafted into the annual contingent have to pass two whole years with the colours in the case of infantry, and three years in the case of other arms. They then belong to the *Yobi*, or reserve of the active army, until the age of twenty-seven, after which they become *Kobi*, or *Landwehr*, for ten years, until reaching the age of thirty-seven, from which time until arriving at the age of forty they are ranked as *Kokumin*, or *Landsturm*. The service is thus divided into an active service of two years for infantry, three for cavalry and engineers, reserve service of four years and depot service of ten years, covering in all a period of seventeen years beginning from the age of twenty. The Japanese army is further expanded by what is known as the *Ersatz* system by which men are trained for a period of ninety days in the first year, sixty in the second and third years, the candidates serving as a reserve of recruiting and enabling the waste in each annual draft to be made good. The *Ersatz* belong to the active and reserve forces until the age of twenty-seven when they become territorials. As for the *Landsturm* it includes all youths between the ages of seventeen and twenty as well as all those up to the age of forty classed as good for service or excused from service for reasons other than physical unfitness. This category, which is at present untrained, forms a reserve of something over 3,000,000 men who can be drawn upon any time in case of emergency, but need not be considered in the effective force.

The organisation of the recruiting territory is based upon that of the divisional unit. Each army division has an area of country



SCENES DURING THE JAPANESE ARMY MANŒUVRES, 1917

allotted to it, from which it draws its recruits in peace and its reserves on mobilisation. There are eighteen divisional districts, the divisions detached in Korea and Manchuria retaining their districts in Japan. The Imperial Guards alone are recruited from the whole territory. In each divisional district the country is divided up into infantry, brigade, regimental, and battalion areas. Other forces are recruited from the divisional district as a whole or from appointed portions of it, while some troops are allotted special or larger areas. Formosa has a special garrison, as have also Tsushima, Saghalien, and the other colonies. The total number of troops quartered outside of Japan are the divisions in Korea and 34,000 others, including 10,000 railway guards, in Manchuria.

The peace strength of the Japanese army is now about 250,000 men, with some 6,000 officers, and the first line of defence easily musters 600,000 strong, including 260,000 reservists; while the total fighting force at Japan's disposal in case of need is, as has been before mentioned, not less than 2,000,000.

As to mounts, Japan has been importing large numbers of Australian horses since the war with Russia, but not enough for the requirements of the army, and consequently the supply has been supplemented by half-breed animals known as *zashu*, which are by foreign sires from home-bred mares, raised for the most part on the government stock farms and in Hokkaido. These *zashu* are preferred to foreign horses by most Japanese officers, as they are said to stand the climate better and are more amenable to Japanese ways of handling. The Japanese army requires about 130,000 horses; and the whole country possesses not more than 1,600,000, of which not more than 14,000 are imported, and 530,000 are half-breeds. There is a drastic law in existence for the registration, classification, and requisition of horses and wagons on mobilisation; but it must be remembered that horses are not of such great importance in the Japanese military system.

ARMY ORGANISATION

THE Japanese army, as has been already pointed out, consists of twenty divisions, with prospects of five more in the near future. A division is composed of two brigades of infantry, a regiment of cavalry, one of artillery, and a battalion each of engineers and army service corps. Each regiment of infantry consists of four battalions of 600 men each, while a regiment of cavalry has four squadrons of 100 sabres each. A regiment of field artillery is made up of six batteries, each of four guns and 24 machine guns; a battalion of engineers has three companies



FIELD-MARSHAL PRINCE YAMAGATA, HEAD OF THE GENRO, OR ELDER STATESMEN, AND ONE OF THE MOST INFLUENTIAL MEN OF JAPAN

of 200 men each, while the army service corps has 300 men, including a bridging train, telegraph section, medical corps, eight ammunition columns, four supply columns, four to six field hospitals, and a mobile remount depot. The six-gun battery was abandoned for one of four guns after the war with Russia, as it was found impossible to carry more than 289 shells for each gun, a supply quite insufficient for a hot artillery duel when guns often discharge as many as 500 rounds a day;



GENERAL BARON Y. UEHARA, A DISTINGUISHED SOLDIER, FORMERLY MINISTER OF WAR IN THE SAIONJI CABINET, NOW CHIEF OF THE GENERAL STAFF

so that four guns were all that really could be handled with advantage. An infantry company numbers 156 all ranks, a squadron 140 with 135 horses, and the field battery 128 with 62 horses; an engineer company 170 or 200. Thus the Japanese army division remains, as before, the largest unit of the war organisation. The division has its headquarters, including chief-of-staff and *adjutantur*, and on active duty it has about 18,875 men, with 4,938 horses and 1,765 carriages.

In addition to the twenty divisions composed as above, the Japanese army has troops numbering four brigades of cavalry, each having three regiments of five squadrons; two batteries of horse artillery; three independent brigades of field artillery forming six regiments with 216 guns; three independent mountain batteries with 54 guns; four regiments of heavy field artillery; railway troops, wireless and other telegraph units; a balloon company; searchlight detachments and field *gendarmerie*. There are also troops for lines of connection; 24 batteries of heavy artillery for coast defence, beside the garrisons outside Japan. It has been the practice of Japan to add a brigade of reservists to each division on active service, but as time goes on this may be unnecessary. The use of these reserve troops is a secret of the higher command; but probably the trend is toward the German custom of depending chiefly on highly trained troops and not to hamper them with inferior elements. In the war with Russia Japan created four or five armies, as she would doubtless do in case of war again; but there exists no permanent arrangement of the divisions into armies and there are no staffs. The Emperor is the supreme head of the army and navy; and in time of war he directs the combined operations of these forces through the headquarters staff, assisted by the Field Marshal, the military council consisting of the chief officers of the army and navy and others. The army in time of peace is governed by the Minister of War, the Chief of the General Staff, and the Director of Military Education and Training. The chiefs of these departments are independent of one another and directly under the Emperor. The systems followed by the War Office and the General Staff Office are after the German model.

MOBILISATION AND EQUIPMENT

DURING mobilisation in Japan, as in Europe, the reserves are called out, depots are formed and reserve formations prepared on the required scale and in the orthodox manner. Usually the first divisions mobilised are allowed 10 days for preparation, this time having been proved to be ample. Reservists set out for their destinations on the second



THE MILITARY STAFF OFFICE, TOKYO—OFFICE OF THE GENERAL STAFF, TOKYO, WITH EQUESTRIAN STATUE OF PRINCE KITASHIRAKAWA

day of mobilisation. The first troops are generally ready to entrain or embark on the seventh day of mobilisation; the entire first line is ready in between 12 and 20 days, and the reservists between 20 and 25 days. Japan has nearly 7,000 miles of railway with over 2,500 locomotives and plenty of rolling stock for transportation of troops; while her marine transportation facilities are also of the best, possessing, as she does, over 2,000,000 tons. Embarkation drill is frequently practiced in harbours and on open beaches. The regulations allow one ton of shipping per man for the transport of troops by sea, and four and one-half tons per horse. There is no doubt that in case of war Japan would have no difficulty in transporting her active forces to the continent or elsewhere in two *échelons*, and that the first *échelon* would be ready for sea as soon as the troops were ready to embark.

As to equipment, the Japanese army is supplied with an improved design of the Murata rifle, a strong and serviceable weapon rather than a delicate and highly finished arm. The field artillery has guns made at the Osaka arsenal from Krupp patterns of the 1889

type, as well as quick-firing mountain guns of the same type and date. The calibre is 2.95 inches, weight of gun 3,450 pounds behind the teams, and it fires a shell of 13 $\frac{1}{4}$ pounds and has a range of 6,783 yards with igniting fuses and ammunition. With fixed ammunition the extreme range is 9,295 yards and the fuse is said to burn up to a range of 8,749 yards. The shield is of steel, .118 inch thick. It extends over the wheels and has a hinged portion under the axle-tree. The mountain gun takes the same ammunition as the field gun, and has a range of 5,500 yards. New heavy guns of 10 centimetres, and 12-centimetre howitzers, with 24-centimetre and 28-centimetre coast defence guns, are also in use. The 10-centimetre gun has a weight of 5,200 pounds behind a team of eight horses; and its initial velocity is 1,770 f. s., with a range of 10,396 yards. It fires a 40-pound projectile, and carries a shield similar to that of the field gun. The Japanese also use the Hotchkiss gun, taking .256-inch ammunition, the same as the infantry rifle; and the gun is sighted up to 2,187 yards. It has an all-round traverse and tripod mounting, its chief defect being that it weighs

between 70 and 100 pounds including tripod.

The field service dress of the whole army is khaki, cloth in winter and linen in summer, while the cap is somewhat after the Russian pattern. The cap is gravely defective as a protection from the torrid heat of the Japanese summer, to which many soldiers succumb on the march. The chief military arsenals are at Tokyo and Osaka, the first manufacturing small arms with ammunition therefor, and the Osaka works dealing with guns and their ammunition. Most of the army cloth is made at the Government woollen mill near Tokyo, the uniforms being made up regimentally.

Military education in Japan, as already indicated, is based on the German model, with district preparatory schools, central preparatory school, officers' school and military staff college, as well as the Toyama Tactical School, the Cavalry School, and various schools for artillery and engineering. The education given is thorough and the discipline very strict. The rules for promotion of military officers in Japan are as follows, the limit being reduced one-half in time of war: two years each from sub-lieutenant to

lieutenant, and to a captaincy two years more, with an additional four years for a major and three more years for a lieutenant-colonel, three years to a colonel and three more to the rank of major-general, and three years again to the rank of lieutenant-general, promotion to the rank of general and marshal being left to the will of the Emperor. The age limit for officers on active service is 45 for a sub-lieutenant and lieutenant, 48 for a captain, 50 for a major, 53 for lieutenant-colonel, 55 for a colonel, 58 for a major-general, 62 for a lieutenant-general, and 65 for a general, there being no limit of age for a marshal. At present there are in the Japanese army 65 generals and officers ranking as such, 581 field officers and those of equal rank, 1,429 company officers of the highest rank, non-commissioned officers of highest rank, 346, ordinary non-commissioned officers, 3,103. The total number of army officers is about 5,524, with some 2,835 civilian officers.

Aviation was not introduced into the Japanese army until 1911 when two native officers trained in France returned to organise an air service. By 1912 two more officers were trained, and three others in 1913. Since then this service has seen much greater development. A training ground was established at Tokorozawa near Tokyo, where some ten flight officers are graduated every year. The army now possesses 20 aeroplanes and one airship. So far no great skill in air navigation or in the handling of planes has been displayed by the Japanese; while the number of victims to disaster in comparison to the number of officers is probably larger than in any other country, or army. This may be due largely to the prevailing carelessness that is evident among nearly all Japanese with regard to machinery; and the numerous air accidents in Japan might doubtless be considerably reduced by more expert and responsible engineers. One can not help feeling that many of these air disasters are due to not examining the parts of the machine with sufficient care before ascending. The machines thus far preferred are Morris-Farman biplanes and Newbolt monoplanes, which are rather out of date beside the magnificent machines used in Europe. The motors at best do not develop a horsepower above 75, and by the Japanese themselves they are held largely responsible for the many tragic accidents that have occurred. Occasional visits from expert American aviators have shown the Japanese how far behind they yet are in the science of air navigation, and lent much impetus to

the development of a better army air service. Consequently in 1916 the Government appropriated some 600,000 yen as against the 400,000 yen of the preceding year for improvement of aviation in the army, with orders for the construction of forty more machines. Motors of 150 horsepower are to be imported from Europe, and others after the same model constructed at home. The solitary airship possessed by the Japanese army is of no great importance, having a horsepower of 300 and a speed of only twenty miles. The Japanese aviation battalion now has forty trained officers; and the service rendered by them during the siege of Tsingtau as well as during army manoeuvres has proved quite effective.

ARMY FINANCE

JAPAN is a country where army expenditure centres on equipment rather than on personnel. Since 1910 the monthly allowance to soldiers has been increased to 1.95 yen for first-class privates, and 1.56 for other ranks of infantry. An extra allowance of from 15 to 20 sen a month is given for stationery. Privates are not permitted to receive money from home. As to food, the private soldier is allowed 1 quart of rice a day, with from 7 to 11 sen a day for relishes, the money allowance being increased to 15 sen in the colonies and 25 sen in the China garrisons. The infantry soldier is allowed from 27 to 34 yen a year for clothes; the cavalry soldier from 31 to 37 yen; artillery 30 to 36 yen; engineers from 28 to 34 yen, and the commissariat from 29 to 35 yen. Other allowances are given for camping utensils and barracks necessities. The cavalry are allowed fodder in hay and barley at so much a month, with so much for shoeing and clipping.

Army expenditure is divided into ordinary and extraordinary, all drawn from the national treasury. The ordinary expenditure includes the annual outlay of the War Department and of the various corps, while extraordinary expenses include outlays on con-

struction of barracks and batteries, on quelling disturbances, on medical aid for sick and wounded, manufacture of weapons and other equipment, as well as transport of troops and arms. The accompanying table will indicate the amount Japan has spent on her army since 1878 at intervals of five years.

It is clear from the above that the military expenses of Japan have been increasing vastly and that it must tax the country to its utmost to sustain such outlay on unproductive enterprise. It is indeed remarkable that so large a proportion of the nation's financial resources should be concentrated on development of forces and armaments in a country whose territory is practically unassailable, not only by any single enemy but by any reasonable combination of enemies. Such sustained outlay is undoubtedly having an unfavourable effect on the internal development of the country, and there is naturally a strong reaction against the heavy taxation essential to the maintenance of so enormous an expenditure. But the army and navy are the only two departments of public service where efficiency has been quite attained; and even there it could not have been attained without a tremendous sacrifice. Japan is now sufficiently defended to deter any power except, perhaps, England and America, from attacking her in her own waters; while her two fighting services combined with her geographical position assure her a predominant position in the Far East. In weight of numbers, excellence of organisation, adequacy of armament, skill of personnel, knowledge of war science, and splendour of fighting spirit Japan ranks with the best that any fighting nation can command. She believes that to maintain her supremacy in Oriental waters, to command the wholesome respect of the great powers of the world, and watch over the destinies of China a formidable army and navy are essential; and toward this end Japan will bend her main energies for some years to come.

| YEAR | ORDINARY | EXTRAORDINARY | TOTAL |
|------|------------|---------------|-------------|
| | YEN | YEN | YEN |
| 1878 | 6,409,000 | 220,740 | 6,629,740 |
| 1883 | 10,764,590 | 771,190 | 11,535,780 |
| 1888 | 11,842,620 | 565,920 | 12,408,540 |
| 1893 | 12,419,830 | 2,301,400 | 14,721,230 |
| 1898 | 35,577,310 | 16,973,890 | 52,551,200 |
| 1903 | 39,169,670 | 10,272,390 | 49,442,060 |
| 1908 | 70,209,780 | 37,206,990 | 107,416,770 |
| 1913 | 80,175,381 | 23,950,008 | 104,125,389 |
| 1918 | 78,855,757 | 15,457,357 | 94,313,114 |



TORPEDO-BOAT DESTROYER "KASHIWA," OF THE MODERN JAPANESE TYPE

V. THE NAVY

THE NAVY OF ANCIENT TIMES—BIRTH OF THE IMPERIAL JAPANESE NAVY—THE NEW NAVY IN WAR—JAPAN'S NAVY TO-DAY—FINANCE—EDUCATION AND PERSONNEL—THE IMPERIAL DOCKYARDS

IN the art of navigation and maritime prowess the people who conquered and settled upon the islands of Nippon seem to have been remarkably skilled for so remote a period. Allowing that the Yamato race arrived in the archipelago six hundred years before the Christian era, it must have reached the islands in ships capable of resisting the savage hordes that probably opposed the landing of the strangers; and thus it is clear that from the beginning of Japanese history, or tradition, the art of navigation and sea warfare was sufficiently developed to allow of transportation of troops from the continent and their forcing an entrance to the neighbouring islands. According to the most ancient records of Japan navigation showed considerable progress between the years B. C. 97 and 30, when troops were despatched to Korea to assist those of the warring kingdoms there who were friendly to Japan; and this was the beginning of Japan's influence in the peninsula, leading to what was tantamount to a protectorate later. During the various incipient insurrections among the savage tribes whom the Yamato brought under their sway, especially the virile Kumaso

who inhabited Kyushu and caused an uprising in 71 A. D., warships were used with telling effect; and in a subsequent rebellion in 200 A. D. the Emperor Chuai led a naval expedition to Chikuzen. The emperor died during the campaign; and the Empress Jingō, having discovered that the rebels were aided by kindred from Korea, went herself on an expedition to that country to cut off assistance to the rebels and to carry out punitive operations. In the year 310 A. D. we find that the art of navigation had so far developed in Yamato that it was necessary to appoint maritime officials in various centres and Japanese sails were seen in all the waters of the Far East. In 655 A. D. a naval expedition subdued the Island of Oshima. During the prolonged internecine strife of the Middle Ages between the Taira and the Minamoto clans, naval engagements were frequent, the most notable being the great sea fight at Dannoura in 1185. The military government established by Yoritomo at Kamakura in the twelfth century had a powerful navy for that time, and the various feudal lords were not slow to imitate the shogun in their prowess at sea. When Kublai

Khan invaded Japan with his Mongol Armada in the thirteenth century he found a resistless maritime force waiting to oppose his landing, and he was driven back to sea, where a furious gale completed his destruction. The sea power of Japan thenceforth expanded rapidly, both internally and externally, until its development was checked and finally arrested as a consequence of the admission of foreigners to Japan. But there is no doubt that the gradual internal consolidation of the Empire at the beginning was largely the work of an efficient sea power.

With the opening of a route from Europe by way of the Cape of Good Hope foreign navigators began to make their way to Japan, encouraged by opportunities of trade with a people not yet aware of the values of the main items of barter and trade. From these European seamen Japan learned something of the outside world and how to come in contact with it. During the fifteenth and sixteenth centuries the art of navigation in Japan had so developed that junks of three masts were built, a special government department was organised for the regulation of merchant marine, and vessels engaging in foreign trade

had to have a special license. In the days of Hideyoshi vessels of Japan were found in the ports of China, Siam, India, and even across the Pacific in Mexico. Between the years 1604 and 1616 the number of licenses given to vessels trading abroad was over two hundred. Owing to the increasing danger of complications with foreign countries, however, emphasised by suspicions circulated by rivals in trade, the Shogun Iyemitsu in the year 1636 placed an embargo on all communications with foreign lands, and the building of seagoing ships was prohibited. From this time Japan's naval power began to decline. With the expulsion of foreigners from Japan intercourse by sea was cut off save for the limited privileges accorded the Dutch at Nagasaki under the most humiliating conditions, and navigation abroad was not reopened until Commodore Perry broke down the walls of seclusion in 1853.

BIRTH OF THE IMPERIAL NAVY

WITH the reopening of Japan to foreign intercourse the necessity of possessing a strong naval force was keenly felt by the nation. The ease with which the so-called "black ships" of the stranger accomplished their mission in the presence of the helpless native war-junks showed the Japanese that the shogunate was now the victim of its own policy, and that so inefficient a government should be replaced by one more in harmony with the expanding needs and relations of the Empire. The people of Japan did not require much persuading as to the need of reviving the navy. It was soon seen that the old sea power suppressed during the Tokugawa régime was not dead but sleeping. The Dutch Government suggested the establishment of a navy on the European model. A naval school was opened at Nagasaki in 1855, with Dutch instructors; and not long afterward a shipyard and iron works were opened at the same port, the beginning of the present great establishment known as the Mitsu Bishi Dockyard, the greatest ship-building works in the Empire. Another naval school was established at Yedo where graduates of the Nagasaki institution were brought for higher studies and further naval training, the *Kanko Maru*, a present from the Dutch Government, being the first training ship. The nucleus of a navy was created by gifts from various countries and by purchases from the United States and Europe, one of the gifts being a warship from Queen Victoria. The Yedo Government now began to despatch students to Europe to pursue naval studies, and the feudal lords did likewise. A naval dockyard was opened at Yokosuka for the promotion of an imperial navy.



ADMIRAL TOGO, JAPAN'S GREAT NAVAL HERO

It must soon have become evident to the shogun's government, however, that its efforts were rather belated; for when a British squadron was obliged to carry out a punitive bombardment of Kagoshima in 1863 and the combined fleets of England, America, France, and Holland had to bombard the forts at Shimonoseki in the following year, there was no sea power capable of offering practical resistance. In the years immediately following these episodes naval preparations were hastened with great expedition, officers being invited from Europe to advise and instruct the infant navy, among whom was the late Admiral Sir Richard Tracey, who, though he had as a young commander taken part in the operations at Kagoshima, was subsequently called upon to lay the foundations of the new Japanese navy. When the shogunate was finally overthrown in 1867 the young navy of Japan passed into the hands of the Emperor as the commander-in-chief of all the forces of the Empire.

The Restoration of Imperial Rule was not accomplished, however, without the aid of the navy, when it had a chance to show something of its mettle. In the various conflicts that ensued, leading eventually to the triumph of the imperial cause, the bulk of the feudal navy sided with the shogunate party; and under Commander Enomoto, one of the young officers trained in Holland, it made a gallant but vain resistance against the superior forces of the Empire. Baffled in the south, Enomoto retired with his fleet to the north, where the rebels still held out at Hokodaté. There, after some bold fighting, he was forced to surrender to the imperial

fleet, the first triumph of the new-born navy. The rebel ships were at once incorporated into the navy of the nation, and Enomoto and his men, after some unnecessary hardships, were pardoned and ultimately absorbed into the imperial service. Enomoto himself subsequently became Admiral of the Fleet, Minister to Russia, Minister of Foreign Affairs, and finally Prime Minister.

Thus when the wars of the Restoration were over and the imperial forces supreme on land and sea, a fleet of but nine small vessels, mere gunboats, none of which was over one thousand tons, was all the navy Japan possessed. The dockyards that had been established turned out only wooden vessels. It was not until 1887 that Japan launched her first iron ship, most of the fleet up to that time having been purchased abroad. The nation now devoted itself with energy and determination to the organisation and evolution of an efficient navy. What the nascent dockyards and arsenals could not as yet supply in the way of ships and armament continued to be purchased from Europe; while with amazing application, intelligence, and insight the Japanese set themselves to learn the best uses of their new naval equipment. Nor did they make the mistake of supposing that the more important factor in naval efficiency was *matériel*, realising from the start that naval warfare is mainly an affair of *personnel*, a truth which those who have since had the misfortune to challenge Japan on land and sea, have never learned. Not content with acquiring and mastering Western knowledge of the forces of nature, Japan engaged officers of fine personality and efficiency from England to put her budding naval personnel into fighting trim. In addition to the services of Admiral Tracey, already mentioned, Admiral Douglas was selected to lead a naval mission to Japan, consisting mainly of British naval officers, to instruct the Japanese navy, the leader of the mission becoming director of the Imperial Naval College from 1873 to 1875. Later Rear-Admiral Ingles came as naval adviser to the Japanese Government, while Dr. William Anderson laid the foundations of naval medical education in Japan.

It is interesting to note what rapid evolution characterised Japan's naval progress during the years it was under British advisement. Between the years 1870 and 1880 various uprisings marked the political progress of Japan: notably the Saga rebellion in 1874, the attack by Korea in 1875, the Hagi disaffection and the Satsuma Rebellion in 1876, in all of which the imperial navy had to carry out punitive operations of some sort, and this it did so effectively as to prove its remarkable development. The warship



DISTINGUISHED NAVAL OFFICERS

(Upper Row, Left to Right) Admiral SANEYUKI AKIYAMA, a Distinguished Naval Tactician—Admiral Baron H. SHIMAMURA, Chief of the Naval General Staff—Vice-Admiral ISAMU TAKESHITA, Member of the Naval General Staff and Instructor at the Naval College. (Lower Row) Vice-Admiral Baron ROKURO YASHIRO, Formerly Minister of Marine, now Commander of the Second Battle Squadron—Vice-Admiral TETSUTARO SATO, President of the Naval College—Vice-Admiral TAKESHI TAKARABE, Member of the Board of Admirals and Commander of the Maizuru Naval Station

Junsei was launched from the Yokosuka navy yard in 1876, 1,450 tons, being considerably larger than the *Seiki* of the previous year which was only 897 tons. The latter was the first Japanese-built ship to visit Europe, making the trip in 1878. But by 1876 Japanese yards were capable of repairing their own ships without foreign assistance. To promote more rapid naval development three ships were ordered from England in 1878, the old *Fuso*, 3,777 tons, the old *Kongo*, and *Iiyei*, 2,248 tons each. In 1884 the Admiralty Station was removed to Yokosuka, and two more were established, one at Kuré and one at Sasebo, in 1889. In 1892 the Government issued a new naval programme, formulated under imperial rescript, to which the Emperor contributed from the privy purse the sum of 300,000 yen for six years, government officers and high

officials following the Imperial example by giving ten per cent of their salaries, and there were liberal private contributions as well. Thus the infant navy of Japan grew in *matériel* and *personnel* under the assistance and advice of British friends until at the time of its first test, in the war with China in 1894, the aggregate tonnage was 57,600, representing 28 ships and 24 torpedo boats, the total outlay on naval repletion up to that time having been about 240,000,000 yen.

THE NEW NAVY IN WAR

IN the war with China, her first naval engagement of any importance in modern times, Japan showed that during the short space of forty years she was able to evolve a navy capable of efficiently performing every duty devolving upon it. She proved to the world not only the superb prowess and

endurance of her fighting sons but also how thoroughly her leaders had understood and assimilated the eternal principles which make for sea power. It seems to have been seen by Japan from the beginning that the success of her entire operations against China depended on keeping the sea clear for transportation of her troops, a point China failed to perceive, if she saw it at all, until it was too late. With Japan's destruction of the Chinese fleet the command of the sea was thenceforth hers and she was able to keep sufficient forces under her command to carry everything before her in Manchuria. Japan came out of the war with seventeen more ships added to her navy. The terms of peace with China contained the germs of the next war, for they gave Japan a position in Korea and China that Russia was certain to challenge. Japan clearly saw this, and after the



THE "KIRISHIMA," A BATTLE CRUISER OF THE MODERN JAPANESE TYPE

war with China, and her subsequent compulsory withdrawal from Port Arthur, she set about acquiring a navy that even any Western power might hesitate to provoke. New naval stations were established, new arsenals opened, new ordnance works built, new powder factories set up, and powerful fighting units gradually added to the fleet, many of which were launched from home yards. The whole navy system was reorganised on a greatly improved scale, and stricter attention was devoted to education and personnel. A squadron of first-class battleships was added to the armoured cruisers that had beaten China. When the anticipated crisis came in 1904 and war with Russia was imminent, Japan found herself with a total tonnage of 258,000, of which at least 233,876 tons represented ships above the destroyer class; and she came out of the war, notwithstanding important losses, with a

total tonnage of 410,000, having taken twelve battleships and cruisers beside numerous small craft from her opponent. In that war Russia was wholly outwitted by Japanese strategy; for she divided her naval forces between Port Arthur and Vladivostok, making no intelligent effort to prevent Japan's command of the sea, thus leaving the latter with her fleet intact to meet the main naval forces of Russia.

JAPAN'S NAVY TO-DAY

SINCE the war with Russia Japan has relaxed none of her efforts for the evolution of a navy adequate to her needs and worthy of the Empire. The twelve battleships and cruisers captured from Russia were in themselves a valuable addition to her fleet, representing, as they did, an extra 103,500 tons or so. Three of these cruisers were subsequently returned to Russia during the Euro-

pean war for a consideration of 14,500,000 yen. After the war with Russia great improvements were made in the nation's ship-building capacity, and Japan was soon able to construct and equip all sizes and kinds of warships at home; so that in any future war her strategy will not be hampered by consideration of the impossibility of obtaining reinforcements during its continuance. Japan's idea has been to assure herself of competence to encounter successfully any force that any foreign State, with the exception of England, may send against her in Oriental waters; and judging by the performance of the Baltic fleet, as well as the round-the-world cruise of the American navy, Japan assumes that a Western power is able to send its whole fleet into the Orient. The ambition to have a fleet of heavy fighting ships aggregating over 500,000 tons has been cherished by Japan for some time. In 1915 the Eight-



THE "HYUGA," TYPE OF MODERN JAPANESE BATTLESHIP

four programme was formally adopted in the Imperial Diet; which means that Japan will eventually have three squadrons consisting of eight dreadnoughts and four battle-cruisers each, with attendant flotillas, the whole to cost, omitting the flotillas, about 310,000,000 yen, and to be complete by 1924. Into this programme enter the first-line-of-battle units, *Fuso* and *Yamashiro*, recently completed and now in commission, together with the sister ships *Hyuga*, *Isé*, and *Nagato* in course of construction. The seven-year programme includes two battle-cruisers to replace the *Hiyei* and *Kongo* which in that time will have to fall back to the second line; and eleven light cruisers, with thirty-two destroyers and sixteen submarines. Owing to financial considerations Japan's dreadnoughts have had to be separated by as many as four years in date of launching, so that they may not be up-to-date in design after the close of the European war, as it has been found impossible to utilise the lessons of that struggle in their construction. The four new dreadnoughts to be launched during the next four years will be more favourably situated in this respect, and will have a main armament considerably in advance of the first four of the squadron unit. It may be noted here with interest that the battleship *Hyuga* is said to be an entirely Japanese design and quite unlike anything of its class in the British or other fleets, the most important features being an extreme steadiness favouring efficient gunnery, and an original axial emplacement for her 10 14-inch guns, as well as increased capacity for storage of oil side by side with coal. Her displacement is 30,500 tons; length, 683 feet; water line, 630 feet; beam, 94 feet; draught, 28 feet; speed, 23 knots; main armament 10 14-inch guns; secondary armament, 20 6-inch guns.

Recently the Japanese have been making comparisons with regard to probable objectives, with the following results in the year 1918: United States: 17 first-line-of-battle ships; 9 light cruisers; 64 destroyers, and 62 submarines. Russia: 14 first-line-of-battle ships; 14 light cruisers; 67 destroyers, and 63 submarines. Japan has 8 first-line-of-battle ships; 3 light cruisers; 22 destroyers, and 8 submarines. But this does not adequately express Japan's main fighting strength, as the accompanying table will indicate; while the American naval programme during the European war has completely changed her naval status.

In addition to the above Japan has 46 third-class torpedo-boat destroyers most of which are about 381 tons displacement, having a speed of from 29 to 30 knots and nearly all with two torpedo tubes, all built between 1898 and 1910. Of first-class tor-

THE IMPERIAL FLEET

Battleships

| NAME | DISPLACEMENT (TONS) | LENGTH (FEET) | WHERE LAUNCHED | HORSE- POWER | SPEED (KNOTS) | TUBES | ARMOUR (INCHES) | MAIN ARMAMENT (INCHES) |
|-----------------|------------------------|---------------|-------------------|-----------------|---------------|-------|-----------------|------------------------------|
| Shikishima..... | 14,580 | 400 | England, 1898.. | 14,500 | 18 | 5 | 9 | 12 (4): 6 (14) |
| Asahi..... | 14,765 | 400 | England, 1899.. | 15,207 | 18 | 4 | 9 | 12 (4): 6 (14) |
| Mikasa..... | 15,362 | 400 | England, 1900.. | 15,207 | 18 | 4 | 9 | 12 (4): 6 (14) |
| Hizen..... | 12,700 | 374 | America, 1900.. | 16,000 | 18 | 6 | 9 | 12 (4): 6 (12) |
| Katori..... | 15,950 | 420 | England, 1905.. | 16,000 | 18 | 5 | 9 | 12 (4): 10 (4) |
| Kashima..... | 16,400 | 425 | England, 1905.. | 15,600 | 18 | 5 | 9 | 12 (4): 10 (4) |
| Satsuma..... | 19,350 | 482 | Yokosuka, 1906.. | 17,300 | 18.6 | 5 | 9 | 12 (4): 10 (12) |
| Aki..... | 19,800 | 482 | Kuré, 1907..... | 24,000 | 20 | 5 | 9 | 12 (4): 10 (12) |
| Kawachi..... | 20,800 | 479 | Yokosuka, 1910.. | 25,000 | 20.5 | 5 | 12 (12): 6 (10) | |
| Settsu..... | 20,800 | 479 | Kuré, 1911..... | 25,000 | 20.5 | 5 | 12 (12): 6 (10) | |
| Fuso..... | 30,600 | 673 | Kuré, 1914..... | 40,000 | 22 | 6 | 12 | 14 (12): 6 (16) |
| Yamashiro..... | 30,600 | 673 | Yokosuka, 1915.. | 40,000 | 22 | 6 | 12 | 14 (12): 6 (16) |

Battle-Cruisers

| | | | | | | | | |
|-------------------|--------|-----|--------------------|--------|------|---|-----|-----------------|
| Ikoma | 13,750 | 440 | Kuré, 1906 | 20,500 | 20 | 5 | 7 | 12 (4): 6 (12) |
| Kurama | 14,600 | 450 | Yokosuka, 1911. | 22,500 | 21 | 5 | 7 | 12 (4): 8 (8) |
| Ibuki | 14,600 | 450 | Kuré, 1911 | 24,000 | 22 | 5 | 7 | 12 (4): 8 (8) |
| Hiyei | 27,500 | 704 | Yokosuka, 1912. | 64,000 | 25 | 8 | ... | 14 (8): 6 (16) |
| Kongo | 27,500 | 704 | England, 1912 . . | 64,000 | 25 | 8 | ... | 14 (8): 6 (16) |
| Kirishima | 27,500 | 704 | Nagasaki, 1913 | 64,000 | 27.5 | 8 | ... | 14 (8): 6 (16) |
| Haruna | 27,500 | 704 | Kobé, 1913 | 64,000 | 27.5 | 8 | ... | 14 (8): 6 (16) |

First-class Cruisers

| | | | | | | | | |
|--------------|-------|-----|------------------|--------|------|---|---|-----------------------|
| Asama..... | 9,885 | 408 | England, 1898.. | 18,248 | 20.1 | 5 | 7 | 8 (4): 6 (6) |
| Tokiwa..... | 9,885 | 408 | England, 1898.. | 18,248 | 20 | 5 | 7 | 8 (4): 6 (6) |
| Yakumo..... | 9,735 | 407 | Germany, 1899.. | 15,500 | 20 | 5 | 7 | 8 (4): 6 (12) |
| Azuma..... | 9,426 | 431 | France, 1899.... | 16,600 | 20 | 5 | 6 | 8 (4): 6 (12) |
| Iwaté..... | 9,826 | 400 | England, 1910.. | 14,700 | 20 | 4 | 7 | 8 (4): 6 (14) |
| Izumo..... | 9,826 | 400 | England, 1899.. | 14,700 | 20 | 4 | 7 | 8 (4): 6 (14) |
| Kasuga..... | 7,700 | 344 | Italy, 1902..... | 14,696 | 20 | 4 | 6 | 10 (1): 8 (2): 6 (14) |
| Nisshin..... | 7,700 | 344 | Italy, 1903..... | 14,696 | 20 | 4 | 6 | 8 (4): 6 (14) |
| Aso..... | 7,800 | 443 | France, 1900.... | 17,000 | 21 | 2 | 3 | 8 (2): 6 (8) |

Second-class Cruisers

| | | | | | | | | |
|---------------|-------|------|------------------|--------|------|------|------|--------------|
| Kasagi..... | 5,503 | 374 | America, 1898.. | 17,235 | 22.7 | 4 | 4 | 8 (2) |
| Chitosé..... | 4,992 | 395 | America, 1898.. | 15,714 | 22.5 | 4 | 4 | 8 (2) |
| Tsugaru..... | 6,630 | 413 | Russia, 1899.... | 11,600 | 20 | 6 | 3 | 6 (8) (Sold) |
| Toné..... | 4,100 | 400 | Sasebo, 1907.... | 15,000 | 23 | .... | 3 | 6 (12) |
| Chikuma..... | 4,950 | .... | Sasebo, 1911.... | 22,500 | 26 | .... | .... | 6 (8) |
| Hirado..... | 4,950 | .... | Kobé, 1911..... | 22,500 | 26 | .... | .... | 6 (8) |
| Suma..... | 2,700 | .... | Yokosuka, 1895.. | 8,500 | 20 | 2 | 2 | 6 (2) |
| Akashi..... | 2,800 | 295 | Yokosuka, 1897.. | 8,500 | 20 | 2 | 2 | 6 (2) |
| Niitaka..... | 3,420 | 235 | Yokosuka, 1902.. | 9,400 | 20 | .... | 2 | 6 (6) |
| Tsushima..... | 3,420 | 235 | Kuré, 1902..... | 9,400 | 20 | .... | 2 | 6 (6) |
| Otowa..... | 3,000 | 341 | Yokosuka, 1903.. | 10,000 | 20 | .... | .... | 6 (2) |
| Yahagi..... | 4,950 | .... | Nagasaki, 1911.. | 22,500 | 26 | .... | .... | 6 (8) |

THE IMPERIAL FLEET—(CONTINUED)

First-class Coast Defence Boats

| | | | | | | | | |
|------------|--------|-----|------------------|--------|----|---|---|----------------|
| Fuji..... | 12,649 | 374 | England, 1896.. | 13,678 | 18 | 5 | 6 | 12 (4): 6 (10) |
| Iwami..... | 13,516 | 367 | Russia, 1902... | 16,500 | 18 | 4 | 4 | 12 (4): 8 (6) |
| | | | | | | | | (Sold) |
| Suwo..... | 12,674 | 401 | Russia, 1900.... | 14,500 | 19 | 5 | 4 | 10 (4): 6 (10) |
| | | | | | | | | (Sold) |

Second-class Coast Defence Boats

| | | | | | | | | |
|----------------|--------|------|------------------|-------|------|------|------|--------|
| Okinoshima.... | 4,126 | 277 | Russia, 1896.... | 6,000 | 16 | 4 | 10 | 10 (3) |
| Itsukushima... | 4,278 | 295 | France, 1889... | 5,400 | 16 | 4 | 2 | 12 (6) |
| Hashidaté.... | 4,278 | 295 | Yokosuka, 1891. | 5,400 | 16 | 4 | 2 | 12 (6) |
| Chiyoda..... | 2,439 | .... | England, 1890.. | 5,678 | 17 | 3 | 4 | 4 (7) |
| Akitsushima... | 3,112 | .... | Yokosuka, 1892. | 8,516 | 19 | 5 | 3 | 6 (4) |
| Manshu..... | 3,916 | .... | Austria, 1901... | 5,000 | 21 | .... | .... | 3 (2) |
| Matsuye..... | 2,550 | .... | ..... 1898.. | 1,500 | .... | .... | .... | .... |
| Karasaki..... | 10,500 | .... | England, 1896.. | 2,300 | 18 | .... | .... | 3 (1) |
| Yamato..... | 1,502 | 206 | Onohama, 1885. | 1,622 | 13 | 2 | Wood | 3 (4) |
| Musashi..... | 1,502 | 206 | Yokosuka, 1886. | 1,622 | 13 | 2 | Wood | 3 (4) |
| Komabashi.... | 1,230 | .... | Sasebo, 1913... | 1,824 | .... | .... | .... | .... |

First-class Gunboats

| | | | | | | | | |
|--------------|-------|-----|-----------------|-------|----|------|------|-------|
| Chihaya..... | 1,263 | 273 | Yokosuka, 1900. | 6,000 | 21 | 5 | .... | 4 (7) |
| Mogami..... | 1,350 | 316 | Nagasaki, 1908. | 8,000 | 23 | .... | 2 | 4 (7) |
| Yodo..... | 1,250 | 300 | Kobé, 1907.... | 6,500 | 22 | .... | 2 | 4 (7) |

Second-class Gunboats

| | | | | | | | | |
|--------------|-----|------|-----------------|-------|----|------|------|-------|
| Uji..... | 620 | 180 | Kuré, 1903.... | 1,000 | 13 | .... | .... | 3 (4) |
| Sumida..... | 126 | .... | England, 1903.. | 680 | 13 | .... | .... | 6 (2) |
| Fushimi..... | 180 | .... | England, 1906.. | 800 | 13 | .... | .... | 6 (2) |
| Toba..... | 250 | .... | Sasebo, 1911.. | 800 | 15 | .... | .... | 3 (2) |
| Saga..... | 785 | .... | Sasebo, 1912... | 1,600 | 15 | .... | .... | 4 (1) |

First-class Torpedo-boat Destroyers

| | | | | | | | | |
|--------------|-------|------|----------------|------|----|---|------|-------|
| Umikazé..... | 1,150 | .... | ..... 1910.... | .... | 35 | 4 | .... | 4 (7) |
| Yamakaze.... | 1,150 | .... | ..... 1911.... | .... | 35 | 4 | .... | 4 (7) |

Second-class Torpedo-boat Destroyers

| NAME | DISPLACEMENT (TONS) | LAUNCHED |
|----------------|---------------------|----------|
| Sakura..... | 600 | 1911 |
| Tachibana..... | 600 | 1912 |
| Matsu..... | 655 | 1915 |
| Kashiwa..... | 665 | 1915 |
| Kaba..... | 665 | 1915 |
| Sasaki..... | 665 | 1915 |
| Kusunoki..... | 665 | 1915 |
| Ume..... | 665 | 1915 |
| Katsura..... | 665 | 1915 |
| Kayede..... | 665 | 1915 |
| Sugi..... | 665 | 1915 |
| Kiri..... | 665 | 1915 |
| Urakazé..... | 955 | 1915 |

pedo boats the imperial navy has 16, most of which have a displacement of 152 tons, and all built between 1899 and 1904, together with 10 second-class torpedo boats ranging from 70 to 100 tons, and 15 submarines.

The imperial fleet as organised at present is divided into three sections, or fleets, the first being stationed at Yokosuka, the second at Kuré, and the third at Sasebo, the first fleet consisting of four squadrons, the second of three, and the third of three, each squadron having its flagship and from three to four first-line-of-battle ships with attendant flotillas.

The Japanese navy did not begin to take up aviation until 1912 when some officers returned from a study of the science in

France, after which a training ground was opened at Oppama near Yokosuka. A naval aviation corps was organised in 1916, and the sum of 630,000 yen appropriated for equipment. At present the navy possesses some thirty flight officers, though so far no very great progress has been achieved or skill displayed, accidents being far too numerous, owing to lack of care on the part of engineers and the inexperience of aeronauts. The subject will be found more fully treated in the article on Japan's army elsewhere in this volume.

FINANCE

THERE is nothing very special to be said about naval finance, except to show what Japan has expended on naval repletion and expansion since the year 1871, which will prove that her naval outlay has proceeded at a greater rate than that of any other naval power, reduction being marked in any year only by the necessities of war. According to her eight-four programme, already mentioned, Japan proposes to lay out on naval expansion during the next seven years some 310,000,000 yen; but as she is following the policy of scrapping all ships that reach the stage of obsolescence, probably a much greater sum will have to be expended. Japan is bent on a naval programme of utmost preparedness without provocation or vindictiveness. She desires for the most part to build her ships in her own yards, though she can not yet do so as cheaply as she can purchase them in Britain, but she is convinced that her builders need to be kept up to the utmost mark of efficiency in steady practice, and she orders ships abroad only for the sake of keeping foreign models well in evidence among her designers. (See table next page.)

EDUCATION AND PERSONNEL

FOR the education of her naval officers Japan has a fine array of schools, even to a Paymasters' College, which work other nations usually leave to extraneous institutions. The chief educational establishments are the Naval Staff College in Tokyo, for completing the training of her specialists, the Naval Engineering College at Yokosuka, the Naval Cadets' School at Etajima, the Naval Paymasters' College and the Naval Medical College in Tokyo. There are torpedo and gunnery schools also at Yokosuka as well as a school for the training of naval mechanics and machinists. The highest institution is the Naval Staff College where men are trained for staff officers and future commanders. The entrants must be either lieutenants who have finished their course at the gunnery, torpedo, or navigation schools, or officers who have served two whole years at sea. Appli-

cants have to undergo a stiff examination before they can be admitted to the courses in the Staff College. There is in the same institution a special course divided into navigation and engineering subjects. The entrants to the Naval Medical College are graduates of some recognised medical college, and their course of special training for the navy lasts about six months. Senior surgeons are selected for a year's post-graduate work at this college after having served some years in

ships. The Paymasters' College admits students by examination from the national middle schools, and their training lasts three years and four months. Special students may be admitted for a six months' course provided they are graduates of some higher school or university recognised by the naval authorities. Senior officers in the accounting department are selected every year for a year of special study at this college in preparation for staff paymasters and specialists.

NAVAL EXPENDITURE

| YEAR | DISBURSEMENTS | | | TOTAL STATE OUTLAY | PERCENTAGE OF TOTAL TO STATE OUTLAY |
|------|---------------|---------------|----------------|--------------------|-------------------------------------|
| | ORDINARY | EXTRAORDINARY | TOTAL | | |
| | Yen | Yen | Yen | | |
| 1871 | 886,856.16 | ..... | 886,856.16 | 19,235,158 | 0.461 |
| 1872 | 1,995,509.13 | ..... | 1,995,509.13 | 57,730,025 | 0.346 |
| 1873 | 2,141,681.49 | ..... | 2,141,681.49 | 62,678,601 | 0.342 |
| 1874 | 2,622,439.26 | 167,004.42 | 2,789,443.68 | 82,269,528 | 0.339 |
| 1875 | 5,342,515.00 | 1,627,424.00 | 6,969,939.00 | 66,134,772 | 0.604 |
| 1876 | 2,468,975.92 | 985,783.69 | 3,454,759.61 | 59,308,956 | 0.583 |
| 1877 | 2,235,720.91 | 1,477,436.47 | 3,713,157.39 | 48,428,324 | 0.767 |
| 1878 | 2,817,453.65 | 16,494.74 | 2,833,947.40 | 60,941,336 | 0.465 |
| 1879 | 2,904,347.96 | 237,326.15 | 3,141,674.11 | 60,317,578 | 0.521 |
| 1880 | 3,024,123.86 | 391,747.91 | 3,415,871.78 | 63,140,897 | 0.541 |
| 1881 | 2,851,576.50 | 256,939.40 | 3,108,515.90 | 71,460,321 | 0.435 |
| 1882 | 3,249,675.81 | 396,327.90 | 3,646,003.71 | 73,480,667 | 0.496 |
| 1883 | 3,171,466.15 | 3,064,032.14 | 6,236,498.29 | 83,106,859 | 0.750 |
| 1884 | 3,324,782.31 | 4,186,154.47 | 7,510,936.78 | 76,663,108 | 0.980 |
| 1885 | 2,878,204.67 | 2,208,171.36 | 5,086,376.03 | 61,115,313 | 0.832 |
| 1886 | 4,731,959.47 | 4,220,408.31 | 8,952,367.78 | 83,223,960 | 1.076 |
| 1887 | 4,941,523.77 | 5,954,845.19 | 10,896,368.96 | 79,453,036 | 1.371 |
| 1888 | 5,468,551.95 | 4,340,908.59 | 9,809,460.55 | 81,504,024 | 1.203 |
| 1889 | 5,277,331.56 | 4,045,825.71 | 9,323,157.27 | 79,713,671 | 1.170 |
| 1890 | 5,786,381.36 | 4,372,923.28 | 10,159,304.65 | 82,125,403 | 1.237 |
| 1891 | 5,412,490.61 | 4,089,200.79 | 9,501,691.40 | 83,555,891 | 1.137 |
| 1892 | 5,347,185.88 | 3,785,919.72 | 9,133,105.60 | 76,734,740 | 1.190 |
| 1893 | 5,141,475.39 | 2,959,445.77 | 8,100,921.16 | 84,581,872 | 0.958 |
| 1894 | 4,573,605.46 | 5,679,549.19 | 10,253,154.66 | 78,128,643 | 1.312 |
| 1895 | 4,913,243.95 | 8,607,025.18 | 13,520,269.13 | 85,317,179 | 1.585 |
| 1896 | 7,351,329.92 | 12,659,428.00 | 20,005,757.92 | 168,856,509 | 1.190 |
| 1897 | 9,543,888.99 | 40,850,645.21 | 50,394,534.20 | 223,678,844 | 2.253 |
| 1898 | 11,191,474.86 | 47,338,427.03 | 58,529,901.89 | 219,757,569 | 2.663 |
| 1899 | 14,577,114.24 | 47,084,495.87 | 61,661,610.11 | 254,165,538 | 2.426 |
| 1900 | 16,911,000.08 | 41,363,895.02 | 58,274,895.10 | 292,750,059 | 1.990 |
| 1901 | 19,484,952.74 | 24,494,374.85 | 43,979,327.60 | 266,856,824 | 1.648 |
| 1902 | 21,063,345.00 | 15,262,843.29 | 36,326,188.29 | 289,226,626 | 1.256 |
| 1903 | 21,530,237.00 | 14,587,619.95 | 36,117,856.95 | 249,596,953 | 1.447 |
| 1904 | 8,132,720.08 | 12,480,498.67 | 20,613,218.76 | 277,055,682 | 0.744 |
| 1905 | 12,332,139.14 | 11,079,801.72 | 23,411,940.86 | 420,731,068 | 0.556 |
| 1906 | 27,991,349.97 | 33,885,320.09 | 61,876,670.07 | 464,275,583 | 1.333 |
| 1907 | 31,292,935.91 | 40,979,383.87 | 72,272,319.78 | 602,400,959 | 1.200 |
| 1908 | 34,347,699.64 | 37,230,748.13 | 71,578,447.77 | 626,788,419 | 1.141 |
| 1909 | 35,143,415.80 | 35,902,959.24 | 71,046,374.10 | 582,893,635 | 1.333 |
| 1910 | 38,359,312.42 | 45,481,219.75 | 83,840,532.17 | 569,124,027 | 1.473 |
| 1911 | 40,208,251.47 | 60,255,366.29 | 100,463,617.76 | 585,374,613 | 1.721 |
| 1912 | 41,533,600.57 | 53,951,538.60 | 95,485,139.17 | 593,596,444 | 1.609 |
| 1913 | 38,885,701.72 | 57,559,890.04 | 96,445,591.76 | 573,633,925 | 1.681 |
| 1914 | 30,398,898.97 | 52,861,106.66 | 83,260,005.64 | 648,420,409 | 1.284 |
| 1915 | 43,112,320.00 | 52,376,637.00 | 95,488,957.00 | 602,610,719 | 1.449 |
| 1916 | 46,496,165.00 | 55,747,761.00 | 102,243,926.00 | 602,262,972 | 1.699 |



OYASHIRAZU CLIFF, KARENKO DISTRICT, FORMOSA

To some the Japanese navy may appear to be overstaffed as compared with the British and other navies. The British fleet with its more than 2,500,000 of tonnage has scarcely more than 3,000 officers, while the Japanese fleet with a little over half a million tons has nearly the same number of officers. The reason is that Japan aims always to have sufficient officers ready on active service to fill any complement on emergency; and thus while the British navy has about 1.35 officers per ton the Japanese navy has 3.42 per ton. The Japanese custom of employing officers on active service for shore duty and routine work may not make for the efficiency of the service at sea. In practice the Japanese subordinate officer rarely remains at sea longer than two years when he is transferred to shore service. Sometimes one hears of admirals and rear-admirals whose service at sea has not been above a few years on training ships or as deck officers. In the Japanese navy promotion is always by selection and never by seniority of service. Promotions are decided at the conference of the Admirals' Council, the limit being reduced one-half in time of war. Midshipmen, after finishing at the Cadets' School, have six months on a training ship, and are then assigned to various warships. A year's practical service having been completed they may become second sub-lieutenants, and in four months more of special study they rise to first sub-lieutenants, and must have spent full two years in active service before they become lieutenants. A lieutenant-commander must have seen five years of active service, and two years after promotion he may become a commander, and another two years can make him

a captain, if the Admirals' Council selects him for promotion. A rear-admiral must have had two years' experience as a captain, and in three more years after promotion he may be advanced to the rank of vice-admiral. Admirals are men of long experience and are always appointed by imperial order. The age limit for admirals is 65, vice-admirals 60, rear-admirals 56, captains 53, warrant officers or engineer commanders 50, commanders 47, lieutenant-commanders 45, lieutenants 44, first and second lieutenants 40, and other ranks are decided according to competency.

The following table gives the number of naval officers and non-commissioned officers up to 1916:

| RANKS | ACTIVE SERVICE | RESERVE | SPECIAL RESERVE | GRAND TOTAL |
|--|----------------|---------|-----------------|-------------|
| Admirals and those receiving equal treatment. | 99 | 92 | 44 | 235 |
| Captains, lieutenants, and those receiving corresponding treatment..... | 3,956 | 503 | 127 | 4,586 |
| Special commissioned officers and those receiving corresponding treatment..... | 1,642 | 271 | 329 | 2,242 |
| Cadets | 173 | ..... | ..... | 173 |
| Non-commissioned officers..... | 51,836 | 18,658 | 11,678 | 82,172 |
| Civil officials in the navy | 1,069 | ..... | ..... | 1,069 |
| <i>Total</i> | 58,775 | 19,524 | 12,178 | 90,477 |

The rank and file of the Japanese navy is recruited from both conscripts and volunteers, conscription being regarded mostly as a supplementary resource, as the service always aims to have more volunteers than conscripts, the proportions for an average five years standing thus:

| YEAR | CONSCRIPTS | VOLUNTEERS | TOTAL |
|------|------------|------------|-------|
| 1910 | 3,235 | 3,487 | 6,722 |
| 1911 | 4,092 | 4,009 | 8,101 |
| 1912 | 4,457 | 4,363 | 8,820 |
| 1913 | 2,145 | 3,112 | 5,257 |
| 1914 | 4,501 | 3,637 | 8,138 |

IMPERIAL DOCKYARDS

THE Imperial Navy Yards at present number four, Yokosuka, Kuré, Sasebo, and Maizuru, with three repairing yards of less importance at Port Arthur and two other places. All the four principal yards possess dry docks for the accommodation of large warships; and the first two have cradles for the construction of dreadnoughts, but the latter two yards are able to build only light cruisers and destroyers. The Yokosuka navy yard is now in equipment, efficiency, and execution equal to any yard of its size abroad. It was opened in 1864 during the Tokugawa

era, and was provided with a technical staff of naval constructors, foremen, and leading hands by the French Government. At first it was used mainly for general shipbuilding, but in 1872 it became the principal shipbuilding establishment of the Japanese navy. Up to 1885 only wooden vessels were attempted, and in 1887 the first iron ship was launched, followed by several third-class cruisers, and in 1906 the first battleship to be built in Japan, the *Satsuma*, was launched from Yokosuka. In addition to its two slips for constructing large ships, there are three others suitable for destroyers and torpedo boats. The yard has four graving docks, the largest of which is capable of

taking any ship afloat. In 1865 the Yokosuka yard employed 960 workmen; in 1911 it employed over 8,000; in war time it employs as many as 16,000; to-day the number engaged there is about 11,000. At the outset the area occupied by this yard was only 18 acres which have now been increased to

116. From the Yokosuka yard were launched fighting monsters like the *Kawachi*, the *Hiyei*, and the *Yamashiro*, for which it was able to provide all the propelling machinery, castings, forgings, and most of the auxiliary machinery. The Kuré dockyard dates from 1889, and first assumed a place of importance just before the war with China in 1894. Its two large building slips have launched some of Japan's biggest fighting units, while its smaller slips have turned out several destroyers and torpedo boats. It has two fair-sized graving docks and one large one, able to accommodate the largest of ships.

The warship *Ibuki* was launched from this yard in six months after laying down the keel, and the fine cruiser *Tsukuba*, unfortunately blown up at Yokosuka in 1917, was also built at Kuré, to say nothing of the *Settsu* and the *Fuso*, of 21,000 and 31,000 tons respectively. At this dockyard the ordnance department is equipped for constructing guns and mountings up to the largest size, most of the armaments for warships built in Japan in recent years being produced here. The Kuré armour plate is reputed to have proved more irresistible to modern gunnery than that imported. Some 17,000 hands are employed at Kuré. The Sasebo navy yard is in southwestern Kyushu, not far from Nagasaki. Originally intended only for repair work the yard has shown remarkable development. Sasebo is now able to build cruisers, and its five docks have good accommodations for quick repairing. The most recent of the national navy yards is the one at Maizuru on the Sea of Japan, within railway reach of Osaka. Like Sasebo it was first established as a repair depot, but it has developed into a fine construction yard where cruisers of a formidable type can be turned out, as well as destroyers and torpedo boats. It has two large and two smaller graving docks, with the usual facilities for every sort of repair work. Port Arthur possesses a good dry dock but still lacks the means for constructing ships, while the repair stations at Ominato and Takeshiki have floating docks equal to minor repairs. The total number of workmen engaged in naval construction, marine engineering, and other duties connected with the imperial dockyards is now something over 40,000. It is unnecessary to say what further facilities Japan enjoys in the way of private dockyards capable of building the largest ships, as these are dealt with under the heading of Shipping and Harbours elsewhere in this volume. These private dockyards underwent considerable development during the European war, and are to-day better equipped than ever for increasing and replenishing the imperial navy as circumstances shall demand.

Japan's greatest inconvenience in regard to ship construction is lack of material. This was especially felt during the European war when supplies were cut off from Great Britain and Europe and the American steel mills were engaged in filling orders at home and for Europe. Japan has no iron mines of any great importance, and is largely dependent on China for ore. The Imperial Steel Works at Yawata in Kyushu can turn out 60,000 tons of plate annually if the ore is available. The new steel works established at Muroran in 1908, as a joint undertaking of the Hokkaido Colliery and Steamship



NAVAL OFFICE, TOKYO

Company and Messrs. Armstrong and Vickers, of England, is a great assistance to the imperial navy in casting big guns. The Government is at present devoting considerable sums to the enlargement of its steel works, and securing sources of ore, so as to place the Empire in a more independent position as regards ship-construction material

in case of emergency. For her decks Japan brings teak from Siam and pine from Oregon, using native woods generally for interiors and decorations.

On the whole it may be said that the struggle for a greater and more efficient navy in Japan is a question mainly of expenditure. Japan has the skill and equipment if she

can only be sure of the material, and that depends on the outlay she can afford. It is a problem whether it would not be advisable to discontinue subsidising her mercantile marine so liberally and devote the money to the more immediate needs of the imperial navy, thus doing away with a process that is threatening her reserves.





VIEW OF SUMA BEACH, NEAR KOBÉ

VI. FOREIGN EMBASSIES AND LEGATIONS

THE BRITISH EMBASSY—THE UNITED STATES EMBASSY—THE FRENCH EMBASSY—THE RUSSIAN EMBASSY—THE ITALIAN EMBASSY—GERMANY—AUSTRO-HUNGARY—THE NETHERLANDS LEGATION—THE SPANISH LEGATION—THE PORTUGUESE LEGATION—THE BELGIAN LEGATION—THE SWEDISH LEGATION—THE CHINESE LEGATION—THE SIAMESE LEGATION—THE MEXICAN LEGATION—OTHER LEGATIONS

THE foreign embassies and legations in Tokyo stand for something more than the mere diplomatic representation that pertains to their office in other national capitals. They also signify the influence that Western nations have had and still are having on Japan, and through Japan on that portion of Asia which she aspires to lead.

From the remote period of her obscure origin at the dawn of the Christian era, down to comparatively modern times, Japan had practically no diplomatic intercourse with any country save Korea and China, and with them mainly in the way of acquiring knowl-

edge and of attempted aggression. No sooner had the tribes that colonised the Japanese archipelago been fused into a united empire by Jimmu Tenno and assumed territorial independence of China and Korea than the new nation began to take an interest in the continent from which it had sprung. Yamato had to rely on her continental neighbours for instruction in the arts of civilisation; but having once acquired these she assumed an attitude of futile aggression. It is true Japan may have been stung to indignation by the raids of Korean pirates and the attempts of the Korean kingdoms to foster

rebellion within the Yamato empire, and was thus led to enter upon her earlier invasion of the peninsula; but she had no such excuse for her later depredations on the continent. Having completed the mastery of Korean and Chinese civilisation by the sixteenth century Japan set out to invade these countries in 1593, the expedition, after devastating the peninsula of Korea, ultimately proving unsuccessful. Then came the Portuguese, Spanish, English, and Dutch, with all of whose countries there were desultory negotiations leading to nothing of any importance except to apprise Japan of the

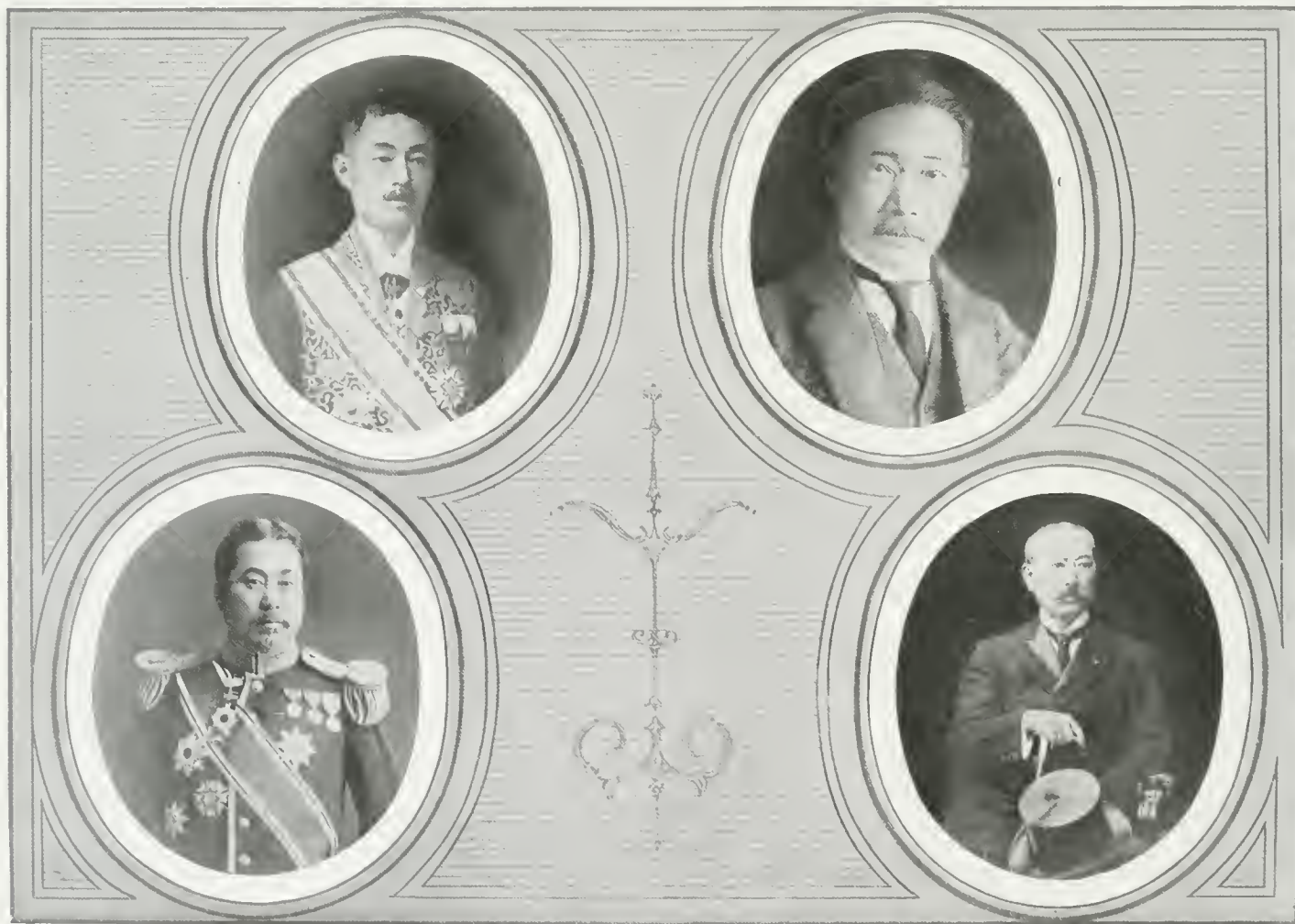
fact that countries more formidable than China and Korea lay beyond and threatened invasion of the East. Thereupon Japan banished all foreigners from her Empire and retired into seclusion for more than two hundred years.

When history shall have placed all the great political events of the nineteenth century in their proper perspective, probably none will appear more important to posterity than the arrival of Commodore Perry's fleet in Japanese waters on July 8, 1853. For this was the beginning of that mighty influence which Western nations have had on Japan in awakening her to a sense of her power to assimilate Occidental ways and means for the establishment of her supremacy in East Asia. The past century has witnessed the fall of the Napoleonic Empire, the unification of Italy, the growth of the Germanic ascendancy with such tragic and disastrous consequences, the disintegration of Turkey, the expansion of

the United States and of the British self-governing colonies as well as the opening up of Africa; but none of these will eventually have a more profound effect on world-civilisation than the modernisation of Japan. In the flexibility and tenacity of her racial spirit Japan is different from all other Asiatic peoples; and if she succeeds in becoming the leader of Asia it will be a question of the white and the yellow races marching together as brothers or the one endeavouring to rule the other. Japan's ambition to be regarded the leader of Asia would have been impossible but for the opening up of the country to international intercourse.

The great events of world-history outlined in the last paragraph all served to mark further stages in the development of mankind under the dominating influence of Western civilisation, confirming the ascendancy of the white races in spite of their numerical inferiority. But the opening of Japan, her rapid

transformation from a feudal to a modern state, and her emergence on the plain of internationalism equipped with all the material implements of peace and war, mark the first check to Occidental supremacy over the other races of the world. For the changes wrought in Japan by the advent of Western civilisation are not those experienced by other races where the white man has come. Japan has simply changed her weapons, but not her soul. It is a change of method rather than a change of mind. Japan has simply put on the garments of Western civilisation as convenient to her policy and purpose, but at heart she is still what the ages have made her, a proud nation that believes in her own innate superiority to all others, her people verily the children of the gods. Here for the first time since the battle of Tours in the eighth century we have an Asiatic nation fully assured that the supremacy of the white races is not indisputable, and one that



DISTINGUISHED DIPLOMATS

(Upper Row, Left to Right) His Excellency, KEISHIRO MATSUI, Ambassador to France since 1915—Viscount SUTEMI CHINDA, Ambassador to Great Britain. (Lower Row, Left to Right) Baron MEGATA, Head of the Japanese Financial and Commercial Mission to the United States in 1917—Mr. AIMARO SATO, Former Ambassador to the United States

intends to see that they do not much longer rely on the continuance of their vested monopoly of a domineering civilisation. Japan is an excellent example of a whole nation stooping to conquer!

The foreign embassies and legations in Tokyo, therefore, find themselves confronting a racial obstinacy not experienced perhaps elsewhere outside of Berlin. Ostensibly the foreign diplomat is, of course, received with every cordiality; but the Japanese never forget that he forced his recognition on the sacred soil of the gods, and they believe that he is still anxious to lead Japan after Western ideals, while she has to see to it that he does not succeed. At the same time, Japan has to appear grateful for what the foreigner has done in equipping her as a modern state. It is a difficult rôle for both the Japanese authorities and the foreign diplomats to fill; but all make the best of it and harmony prevails. Yet no country takes matters out of the hands of local diplomats and sends her own special envoys abroad more often than does Japan. The *corps diplomatique* is regarded as largely ornamental, a compliment to Japan's recognition as a first-class power. These representatives of Western nations engage in the wonted round of felicitations and receptions in season, to which the Japanese authorities duly respond with polite advances, but not a step farther than the utmost diplomatic propriety prescribes. There is never any degree of profuse cordiality between the embassies and the authorities. Get the confidence of the Western diplomat and he will admit that he does not feel quite sure of Japan. Happily he is more inclined to put it down to his own possible misunderstanding of the remarkable people than to any real ground for distrust. Yet, as his association is altogether with the higher classes of the people, he must essentially have a higher opinion of Japan than the merchant who mixes mostly with the lower orders of the community. Consequently an adequate estimate of the situation should include the experiences of both.

The truth has to be admitted that Japan does not really want the foreigner, and endures his presence only as a dire necessity, while the laws in Western countries against Japanese immigration render the Japanese population all the more averse. Echoes of Japan's aversion to foreigners must be heard at times in the embassies and legations of Tokyo, though silence must perforce be observed on such matters. The racial spirit and prejudice of the Japanese is narrower and more impenetrable to alien influence than is the case with any other race known to diplomacy; and yet no people are more adept at hiding their feelings. The art, if it may be



VISCOUNT K. ISHII
AMBASSADOR TO THE UNITED STATES

termed so, is due to the discipline of ages of feudalism, wherein an inconvenient show of feelings would often cost a man his head. Consequently there is practically little real social intercourse between foreigners and Japanese. There is indeed scarcely any contact save in the way of trade, which is apt to foster jealousy and misunderstanding rather than friendship. The Japanese is always labouring under the irritation and strain of trying to be himself while accommodating himself to the practice of Western method and enterprise, and he satisfies neither himself nor his customer. Overconfidence in his own instincts leads the average Japanese to misjudge or to mistrust the intentions of the West. He regards all foreigners as aiming from the start to get the better of him.

And this in spite of the fact that Britain and America, at least, have always striven to be altruistic in their relations with Japan. But Japan's success in attaining the rank of a first-class nation, annexing the peninsula of Korea, and establishing herself permanently on the continent of East Asia, are not regarded by her people as due to the good will of the powers, but in spite of them, and the result of national diplomacy and military prowess. During the European war the prevailing disposition in Japan was to trust neither side to the conflict, but to assume an attitude of cynical independence, though, of course, the authorities did not openly countenance this.

Sufficient has been said, perhaps, to show that the position of a foreign diplomat in

Japan is one of the most difficult in the gift of his government, and should be filled only by the very ablest of men. With Japan herself diplomacy is both an art and a science of the profoundest study and training. All her embassy officials abroad are men of careful education and long experience, speaking fluently the language of the country to which they are accredited. As none of the foreign ambassadors and ministers to Japan speak the language of the country, there is a consequent tendency to discount their importance and influence. The practice of having the speeches of the Emperor translated by an interpreter for the convenience of foreign diplomats has recently been abandoned by the imperial court, on the score that it is undignified to adhere to a custom not observed in Europe. If this is a hint that all foreign diplomats should be able to understand when addressed by the Emperor of Japan, as Japanese diplomats do when spoken to by any sovereign in Europe, it is safe to say that it will be some time before the suggestion is acted upon. Yet there is no doubt that Western governments would be well advised in having as their ambassadors and ministers men who are familiar with the language and civilisation of Japan.

EMBASSIES

THE BRITISH EMBASSY

THE British Legation, now the British Embassy, in Tokyo, from the time of its establishment more than sixty years ago, has occupied a position of prominence and power in the Japanese capital, exercising an invaluable influence, not only on relations between Japan and Great Britain, but on the promotion of modern progress within the Japanese Empire. This attitude for the good of the country was particularly manifest in the refusal of the British authorities to concede treaty revision and the abolition of extraterritoriality until Japan had modernised her institutions, especially the judiciary under which foreigners were to come.

Japan's earliest relations with England were through individuals charged with no diplomatic mission, but who, nevertheless, paved the way for international amity later. The first British subject to put foot on the shores of Japan was a man of Kent, William Adams, who was cast ashore from the wreck of a Dutch ship in the year 1600. He was detained in the country by the shogun as an interpreter and teacher of Western ways, especially of shipbuilding; and after serving the authorities faithfully for twenty years, during which time he gave Japan a taste of the British spirit in the "spacious days of good Queen Bess," Will Adams, as history calls him, died, full of honours and master



HIS EXCELLENCY THE RIGHT HON. SIR
CONYNGHAM GREENE, K. C. B.,
BRITISH AMBASSADOR TO JAPAN

of a fine estate. Various other Englishmen came to Japan under the auspices of the East India Company, for purposes of trade, conspicuous among whom was Captain John Saris, who arrived in the ship *Clove* in 1613 and met with a cordial reception, being given the right to trade where he pleased. After some thirteen years the English factory, or trading station, in Japan closed down as unprofitable, and Japan had no further relations with Englishmen until modern times.

In the year 1853, more than two hundred years after the departure of the English merchants from Hirado, Japan was obliged once more to open her gates to foreigners by the arrival of Commodore Perry and his fleet from the United States. The American officer succeeded in securing a treaty of amity and commerce from Japan in 1854; and some six months afterward a British admiral sailed into the harbour of Nagasaki and demanded a similar treaty, the request being granted. The convention signed at Nagasaki was followed by a larger treaty obtained by Lord Elgin in 1858, modelled after the treaty concluded between America and Japan by Townsend Harris in 1857. The British representative remained but five days in Yedo, and upon conclusion of the negotiations he presented Japan with a ship sent by Queen Victoria. The first resident British minister

to Japan was Sir Rutherford Alcock, who arrived in 1859 as a result of the treaties permitting foreigners to reside in the capital of the shogun. The years of Sir Rutherford Alcock's tenure of office were a crucial period for foreigners, many of whom were killed as hated intruders on the sacred domain of the gods. The secretary to the American Legation was murdered and an Englishman named Richardson was cut down by the samurai of Satsuma because he failed to dismount on meeting their lord. This was too much for the British Government and the shogun was obliged to pay an indemnity of £50,000 and the daimyo of Satsuma £100,000, the latter not complying until after the bombardment of his capital at Kagoshima by a British fleet. Later a British fleet was obliged to participate in the bombardment of the forts of Choshu at Shimonoseki on account of Japanese firing on foreign vessels passing through the straits. At this time both Emperor and shogun were bitterly opposed to opening the country to foreigners, the treaties with whom had been signed by the shogun only through fear of invasion. Peace was finally restored in 1863, Japan paying an indemnity of £600,000. Sir Rutherford Alcock retired in 1865, having proved himself an able diplomat and an earnest student of things Japanese. During the four years of his residence in Japan the nation learned something of British ideas of justice and the sacredness of treaty relations.

The next British Minister to Japan was the famous Sir Harry Parkes, one of the most remarkable diplomats ever sent to the Far East. Having been born and brought up in the East he had an adequate knowledge of Oriental character. Before coming to Japan in 1865 he had been British representative in China where he had once been captured and put to the torture, he of all his companions surviving. Familiar with the wiles of Oriental diplomacy and entertaining a wholesome fear of Oriental civilisation, Sir Harry Parkes was in a position to know just how to deal with affairs in Japan, and he successfully engineered his country through some of the most thrilling episodes of Japanese history. As Japan began to experience the birth-throes of the Restoration the British Minister saw what was going to happen and took the side of the Emperor, while most of the other diplomats were disposed to aid the shogun. Sir Harry Parkes won for himself a reputation for great firmness of character and irresistible energy, and was universally respected for his honesty of motive and candid patriotism. Through him Japan obtained the assistance of British officers in founding her new navy and the inauguration of other important reforms and enterprises.



THE BRITISH LEGATION AT TOKYO

In 1883 Sir Harry was succeeded by the Right Honourable Sir F. R. Plunkett, who retired in 1888 and was followed by Mr. Hugh Fraser, a man of marked character, whose charming wife was a sister of the late Marion Crawford, the novelist. Mr. Fraser died at his post in 1894 and his place was taken by the Honourable P. le Poer Trench, as Envoy Extraordinary and Minister Plenipotentiary. Sir Ernest Satow succeeded Mr. Trench in 1895. Sir Ernest was the first of a long line of distinguished Oriental scholars who have been officials at the British Legation in Tokyo, such as Aston, Gubbins, and Hampden; but he has been the only one rising to be chief. During the incumbency of Sir Ernest Satow the foreign treaties saw revision and Japan regained her long-desired autonomy. With the removal of Sir Ernest Satow to Peking in 1900 the new British Minister to Tokyo was Sir Claude Maxwell MacDonald; and when the Legation was raised to an Embassy in 1905 Sir Claude became the first British Ambassador to Japan, a position he filled with great distinction until his retirement from diplomatic service in 1913. During his twelve years as British representative in Japan Sir Claude MacDonald saw the satisfactory conclusion of such important

treaties as the Anglo-Japanese Alliance and the new Treaty of Commerce and Navigation with Great Britain, the latter requiring the utmost tact and delicacy in the face of a high protective tariff on one side and free trade on the other. No mention of what Sir Claude did for Japan and Great Britain would be complete without reference to the gracious influence of Lady MacDonald and her family on the life and civilisation of Japan.

The present British Ambassador to Japan, the Right Honourable William Conyngham Greene, was appointed in 1913, being promoted from Copenhagen. Sir Conyngham was born in Ireland on the 29th of October, 1854, was educated at Harrow and at Pembroke College, Oxford, and passed the examination for a clerkship in the British Foreign Office in 1877. He became third secretary of the Legation at Athens in 1880 and was appointed acting third secretary at Stuttgart in 1883, and later was *chargé d'affaires* there. He went to the same position at Darmstadt in 1884 and back to Stuttgart in 1885, being raised to the rank of second secretary in diplomatic service in 1887, after which he was *chargé d'affaires* at Stuttgart till 1889. In that year he was transferred to The Hague

where he acted as *chargé d'affaires* until 1892, when he was promoted as secretary to legation at Teheran, acting there as *chargé d'affaires* until 1894. He became H. B. M. agent at Pretoria in 1896, and received the title of C. B. the following year, later receiving the Jubilee Medal and being gazetted K. C. B. In May, 1900, Sir Conyngham was appointed Minister to Switzerland from which he was transferred to Copenhagen in 1911, where he remained until his promotion to the British Embassy in Tokyo in 1913, previous to which he had been sworn as a Privy Councillor. He was gazetted a G. C. M. G. in June, 1914. In 1915 Sir Conyngham was decorated with the Order of the Grand Cordon of Paulownia by the Emperor of Japan. He was married to Lady Lily Frances Stopford, fifth daughter of the fifth Earl of Courtown, in 1884, and has two sons and two daughters. Sir Conyngham had no easy position to fill during the period of the European war when the machinations of the enemy were rife in the Far East; but managed diplomatic affairs with great tact and distinction, while Lady Lily supervised the remarkable work done by the British ladies in Tokyo for the relief of wounded soldiers.

The Councillor of the British Embassy in Tokyo since 1914 has been Mr. Herman

Cameron Norman. Mr. Norman was born June 8, 1872, and after passing through the schools was nominated *attaché* in 1894, when he passed the competitive examination, and was appointed to Cairo in 1896, where he received an allowance for knowledge of Arabic. He was promoted third secretary in 1897 and transferred to Constantinople, being granted an allowance for knowledge of Turkish in 1898. Mr. Norman was transferred to the British Embassy at Washington in 1900, rising to the rank of second secretary the same year. He attended the representative of the Dominican Republic at the coronation of King Edward VII and received the Coronation Medal. Transferred to St. Petersburg in 1903 he received the allowance for knowledge of Russian in 1904, and then returned to the Foreign Office in London till 1906, when he was promoted to the rank of first secretary in the diplomatic service and acted as secretary to the conference on sleeping sickness convened in London in 1907 and to the International Naval Conference in 1908. Mr. Norman attended the Persian representative at the coronation of King George V and received the Coronation Medal. He organised the secretariat of the conference of Allied Balkan States which met at St. James's Palace to conclude peace with Turkey in 1912, and was appointed to his present post in Tokyo in 1914.

Other important members of the British Embassy staff are Mr. C. Wingfield, who is first secretary, Count Charles Henry Bentinck, the second secretary, and Mr. H. Hobart-Hampden, Japanese secretary.

THE UNITED STATES EMBASSY

As America was the first nation to open diplomatic intercourse with Japan her representation was naturally the first to be established in the Empire. Various futile attempts had been made by individual Americans to open up negotiations with Japan for purposes of trade, the more important of which was the visit of the ship *Morrison* in 1837, which, though bearing a party of shipwrecked Japanese on board, was nevertheless fired at on approaching Yedo Bay and forced to retire with its mission unfulfilled. Captain Cooper came with another group of Japanese castaways in 1845, and met with a more cordial reception owing to Japan's greater familiarity with foreigners in the meantime. Though allowed to remain four days he was warned on his departure never to return, no matter how many Japanese he should find in distress. Commodore Biddle appeared in Yedo Bay in 1846, but was immediately surrounded by a cordon of war-junks and informed that no intercourse would be permitted between foreigners and Japan. In 1849 Commander



HON. ROLAND S. MORRIS,
AMERICAN AMBASSADOR TO JAPAN

Glynn of the American ship *Preble* sailed into Nagasaki harbour and demanded the release of some shipwrecked American sailors held prisoners there, and his request was reluctantly obeyed. Reports of ill treatment and often cruelty to American sailors created apprehension in America; and as the Japanese coast was now swarming with American whalers who might at any time find themselves cast ashore, it was felt by the United States Government that some understanding with Japan was absolutely necessary. And so in 1853 Commodore Perry was commissioned by the President of the United States to proceed to Japan with a small fleet and open friendly intercourse with the country. He arrived in the Bay of Yedo with his "black ships," whose dense volumes of black smoke terrified the inhabitants of the shogun's capital, but succeeded only in delivering the letter he had brought from President Fillmore, saying he would return the following year for a reply. In March, 1854, Perry came back and succeeded in negotiating a treaty of intercourse with Japan. The Japanese contend that he forced a treaty on the helpless shogun at the muzzle of his guns, but American official papers and the evidence of eye witnesses, two of whom are still living, do not bear out this view. At any rate Perry gained a signal victory in a diplomatic sense without firing a single shot or unduly offending the sensibilities of the Japanese. To have knocked at the portals of a nation closed to foreign intercourse for more than two hundred years and to have gained an entrance was regarded as a triumph by the nations of

the world, all of whom forthwith rushed in to obtain a similar favour.

An American consul was despatched to Shimoda and another to Hakodaté, the other open port. The consul sent to Shimoda, a little town in the peninsula of Izu, was the famous Townsend Harris who afterward became United States Minister to Tokyo. During his incumbency the American Legation secured the opening of additional ports to trade and the various powers the right of sending representatives to the Japanese capital. With the assistance of the American Minister Japan despatched her first embassy abroad in 1860. After rendering numerous invaluable services both to Japan and his own country Townsend Harris retired through ill health in 1862, and was succeeded by the Honourable R. H. Pruyn of New York. The new Minister had to weather the storm of anti-foreign agitation that now broke out. The American Legation was burnt and its secretary, Mr. Heusken, was murdered. Then came the bombardment of the forts of Choshu at Shimonoseki and the big indemnity paid by Japan, the American portion, amounting to some \$300,000, being subsequently returned. Mr. R. B. van Valkenburg came to the American Legation in 1866, and within a year was able to notify his government of the repeal of a decree that had for more than two centuries prohibited Japanese from leaving their country. The representative of the United States exercised a powerful influence during the years 1868-9 when the Restoration of imperial power was brought about, joining with the British Minister in supporting the imperial cause against the shogun. The American Legation also had much to do with removing the ban on Christianity, and when there came a revival of restrictions against the foreign religion the protest of the American Minister to his home government led to complete freedom of faith in Japan. Owing to Japan's antiquated system of laws and customs she lost some of her judicial and trade autonomy in the first treaties with foreign nations; and when she later became naturally restless under this discrimination and sought a revision of the treaties in her favour, the American Legation did everything possible to further this end, and assisted in sending a Japanese embassy abroad for this purpose in 1871. The policy adopted by Commodore Perry of frankly stating facts and conditions and requesting official action on the basis of truth and fact has always been followed by the United States representatives in Tokyo and has done much to help toward a mutual understanding between the two countries. After the retirement of Mr. Charles de Long as American Minister in 1873 he was

succeeded by Mr. John A. Bingham, who was the first representative from the United States to bear the title Envoy Extraordinary and Minister Plenipotentiary. He was followed by Mr. Richard B. Hubbard in 1885, and he again by Mr. John F. Swift in 1889. Mr. Frank L. Coombs arrived as Minister in 1892 and Mr. Edwin Dun in 1893. His successor, Colonel Alfred E. Buck, was a man of remarkable personality and left an indelible impression for good on Japanese and foreigners alike, being a notable gentleman of the old school. Mr. Lloyd C. Griscom, who was Minister during the Russo-Japanese War, displayed great tact and ability at a crucial period, and was followed by Governor Luke E. Wright in 1906, he being the first American Ambassador to Japan. During his brief tenure of one year Ambassador Wright dealt successfully with the difficult immigration problem, and was succeeded by the Honourable Thomas J. O'Brien in 1907, who was promoted from Denmark. The new Ambassador had the by no means easy task of carrying through the negotiations with regard to Japanese rights in California and the Treaty of Commerce and Navigation between America and Japan, as well as adjusting the rights of American citizens in Korea after annexation. The next Ambassador was Colonel Charles Page Bryan who had previously been American Minister to Lisbon, and to Brussels. Colonel Bryan did much to draw Americans and Japanese into closer friendship and retired in 1911, to be succeeded by the Honourable Larz Anderson, whose brief sojourn in Japan afforded an excellent example of an American samurai. With the change of government at Washington in 1913 the new American Ambassador to Japan was the Honourable George Wilkins Guthrie, who died at his post in 1917, and was succeeded by Mr. Roland S. Morris of Philadelphia who still remains Ambassador at the time of writing. Ambassador Morris was born on the 11th of March, 1874, was educated at the University of Princeton in arts and at the University of Pennsylvania in law, being graduated in 1899. In 1903 he married Miss August Shippen West of Philadelphia and has two children. Before coming to Japan Mr. Morris was a prominent member of the American bar and influential in political circles, having been a law examiner and a chairman of the Democratic State Committee, presiding at the conference of such state committees as met at Washington.

The councillor of the American Embassy is Dr. Post Wheeler who was born in New York in 1871, educated at Princeton University and the Sorbonne in Paris. He married Miss Hallie E. Rives, the authoress, and was



HIS EXCELLENCY M. EUGENE LOUIS GEORGES REGNAULT, AMBASSADEUR EXTRAORDINAIRE ET PLENIPOTENTIAIRE DE LA REPUBLIC FRANÇAISE

appointed second secretary to the American Embassy in Tokyo in 1906. He was first secretary at Petrograd in 1910 and at Rome in 1913, being appointed to the same position in Tokyo in 1914, and later made embassy councillor, acting as *chargé d'affaires* during the absence of the Ambassador. The Japanese secretary of the embassy is Mr. Charles J. Arnell who was born in 1881. After valuable service in various government positions he became private secretary to the American Ambassador in 1906, American Vice-Consul-General at Mukden in 1907, at Antung in 1908, and Japanese secretary at the Embassy in 1909. As *attachés* and other officials of the Embassy frequently change, their names can not be included in this volume.

THE FRENCH EMBASSY

FRANCE, though long prominent in India and at one time influential in Siam, seems to have made little effort to open up intercourse with Japan during the period when Spain and Portugal, Holland and England, were endeavouring to exploit the treasures of the Far East. During the reign of Louis XIV, however, the great financier Colbert seems to have projected an expedition to Japan for the purpose of obtaining gold and rehabilitating the depleted finances of France. Accordingly a French East India Company was established and prepara-

tions made for opening up of trade with the Far East, with Caron, who had already been in Japan with the Dutch East India Company, at the head of the expedition. The project finally fell through and we do not hear of any subsequent effort to establish intercourse with Japan until 1843 when a French ship touched at the Luchu Islands. Three years later a French ship entered the harbour of Nagasaki to ask for provisions and to present a petition asking kind treatment for French subjects shipwrecked on the shores of Japan, receiving no reply from the Japanese authorities. In 1859 Nagasaki was again visited by a French admiral who requested intercourse; but the strange ship was quickly surrounded by war-junks and the French left without accomplishing their mission. Eight years later the French frigate *Cleopatra* called at Hakodaté, Shimoda, and Nagasaki to open friendly intercourse with Japan on the same terms as had been accorded Commodore Perry. After being threatened by war-junks Admiral Cecille sailed up to Yedo Bay and demanded a treaty direct from the shogun, as Perry had done. The request was complied with after much negotiation and a French Minister was appointed to Yedo in 1859 in the person of M. Duchesne de Bellecourt, who was honoured with a personal audience by the shogun. Three years later he was succeeded by M. Leon Roches as Minister Plenipotentiary,

who proved an able diplomat and carried his legation safely through the trying period of anti-foreign agitation. In 1863 when the Tokugawa government repented of having granted concessions to foreigners and the ports opened were closed and the various daimyo warned to prevent the passage of foreign ships, a French ship was fired upon while passing through the Straits of Shimonoseki, leading to a bombardment of the forts by a combined fleet of the powers. From this time onward relations between France and Japan proved of the most amiable nature. The French Minister, M. Roches, found able contemporaries in the British, German, and American Ministers in Yedo, but in friendly rivalry made the mistake of siding with the shogun against the Imperial Restoration. The French Minister, however, succeeded in thus ingratiating himself with the *Bakufu* authorities and a Japanese envoy was sent to France to make arrangements for introducing the French military system into Japan. In the wars of the Revolution French officers assisted the troops of the shogun, and the authorities were also on the point of utilising French warships to maintain their position, when it was suggested that a dangerous precedent for the interference of foreigners in Japanese affairs might thereby be established. In 1868 the new French Minister, M. Maxime Outrey, arrived in Tokyo and continued to occupy

the Legation for the next five years, during which period the Franco-Prussian War broke out. As France was worsted in the conflict Japan now abandoned her adoption of the French military system and took the German. In 1873 Compt de Berthemey came as French Minister to Japan, remaining until 1876, when a change again took place in the French Legation, M. de Geofroy becoming Minister and Envoy Extraordinary. M. Guillaume de Roquette became Minister in 1880 and had to do with the revision of the treaties between France and Japan, which were again revised in 1900. The French Minister at Tokyo in 1883 was M. Tricon, and M. Sienkiewicz became Minister in 1894, soon followed by M. Harmand, who was in Tokyo when France united with Russia and Germany in excluding Japan from possession of the Liaotung Peninsula after the war with China. Then came M. Auguste Gerard, one of the ablest representatives France has ever had in Japan, and her first Ambassador after the Legation was raised to an Embassy, in 1906. M. Gerard was exceedingly popular among all nationalities and not least among the Japanese. He retired in 1913 and was succeeded by M. Eugene Louis Georges Regnault, the present Ambassador of France in Tokyo. M. Regnault was born on the 28th of December, 1857, graduated in law and entered the Foreign Office in 1883, becoming secretary of

the Tunisian Government in 1884. He was appointed consul at Piræus in 1891 and at Salonika in 1892, taking an important position in the Foreign Office again in 1894. He went on a special mission to the East in 1895, became chief of the foreign secretary's office in 1896, and went with the foreign minister to Petrograd on a mission in 1897. M. Regnault was appointed Consul-General at Geneva in 1898 and was made a *chargé* of the Morocco mission in 1904. He was made an officer of the Legion of Honour in 1904 and second plenipotentiary to the Algeciras Conference in 1906, and later became Minister to Morocco. He received the decoration of the Commander of the Legion of Honour in 1912 and was appointed French Ambassador to Tokyo in 1913. M. Regnault married Mlle. Cardon. As the chief officials of the Embassy were absent during the war in Europe their names are not mentioned here.

THE RUSSIAN EMBASSY

RELATIONS between Japan and Russia were for many years based on the circumstance that Japan was a backdoor neighbour, until recent events, which have contributed to a mutual recognition of each other's rights. It is true that while other nations were endeavouring to open up commercial intercourse with Japan, Russia was bent upon similar favours, but she was constantly suspected of territorial ambitions as well. In 1713 Russian ships explored the Kurile and other northern islands and later, in 1736, a second attempt was made to regard these islands as Russian, the surveyors coming as far south as Yezo and even surveying some of the harbours of Japan. These explorations were renewed by Potonchew in 1777, and ten years later La Perouse made maps of Yezo and of the straits that bear his name, obtaining for Europe its first reliable knowledge of Japan. In 1783 the Empress of Russia, Catherine II, directed certain Japanese castaways to be returned to Japan, and advantage was taken of the mission to seek to open commercial and diplomatic intercourse with Japan. The expedition arrived at Matsumae in the north in 1792 and was informed that Japan had no intercourse with foreign nations and to depart and never return. The interest taken by Russia in Japan at this time may be seen from the fact that Japanese sailors cast ashore on the Russian littoral were employed as teachers of Japanese in schools in Irkutsk. In 1804 a Russian ship under Captain Krusenstern arrived at Nagasaki with Count Resanoff, an envoy from the Tzar, negotiations being carried on through Dutch interpreters. The Japanese



THE FRENCH CONSULATE, AT THE FOOT OF THE BLUFF, YOKOHAMA

evinced abnormal suspicion of the mission and nothing could be accomplished, the Russians putting it down to the jealousy of the Dutch. In retaliation for this treatment reprisals were made on the Kuriles in 1806, the raids creating immense excitement in Japan. In 1811 Captain Golownin, a Russian naval officer, and his companions, while engaged in taking surveys of the Kurile Islands, were invited into a fort for negotiations and taken prisoner by the Japanese, who subjected them to great hardships. They did not succeed in obtaining their freedom until two years afterward when Captain Rikord came with a Russian apology for the raids on the Kuriles. No further attempts were made to open intercourse with Japan until a Russian squadron sailed into Nagasaki in 1853 and demanded treatment similar to that accorded Commodore Perry. Admiral Pontiatine obtained his request, the new treaty being of great advantage to Russia at a time when she was at war with Britain and wanted a place of refuge for her ships in Oriental waters. A special embassy from the shogun's government was despatched to Russia in 1864 but without effect, and further negotiations were opened in 1875 for the settlement of disputes regarding Saghalien and the Kuriles, when Japan was obliged to exchange the former for the latter.

The first Russian representative in Japan was M. Eugenie Byustoff, who was Consul-General and *chargé d'affaires*. He was followed by M. Sturve in 1875, the latter being created Envoy Extraordinary and Minister Plenipotentiary in 1877. M. Davidoff was appointed Minister to Japan in 1883 and two years later was succeeded by M. Schiévitich, during whose tenure of office occurred the unfortunate attack on the Russian Legation and, in 1891, the following year, on the life of the Tzarevitch who was on a visit to Japan. In 1893 M. Hitrovo became Minister to Japan, and remained until relieved by the arrival of Baron Rosen in 1897. He was succeeded by M. Iswolsky in 1900. Baron Rosen was again appointed to Tokyo in 1903 as relations between Japan and Russia then were such as to demand the presence of one well versed in Japanese affairs. Baron Rosen had the difficult task of the negotiations immediately preceding the war with Japan. Upon the resumption of peace the new Russian Minister to Japan was M. Baklmeteff, who arrived in 1906, since when both countries have been on the best of terms, with ever brighter prospects diplomatically for the future, their mutual interests in East Asia rendering amicable relations essential. Russia sent her first Ambassador to Japan in 1908 in the person of M. Nicolas Malewitch Malewsky, who

represented his country with distinction until his retirement in 1916, when M. Basile Kroupensky came to the Embassy.

M. Kroupensky began his diplomatic career as third secretary of the Russian Legation at Constantinople, being promoted to second secretary at the same place in 1898. He was subsequently transferred to the same position in the Legation at Pekin, and was besieged there with the other diplomats during the Boxer Rebellion. Subsequently he became councillor to the Russian Embassies in Washington and Berlin and later at Vienna. In 1912 he became Russian Minister to China, and was promoted to his present position at Tokyo in 1916. The councillor of the Russian Embassy in Tokyo

is M. Shekine and the first secretary is Baron Behr.

THE ITALIAN EMBASSY

IN a way Italy has the honour of first making known to the Western world the existence of Japan. Before the thirteenth century Europe had some dim knowledge of the land of Far Cathay, but not even a suspicion that there was such a country as Japan. But in the year 1275 a Venetian traveller, Marco Polo, had succeeded in making his way by the Indian route to China where, at the court of the famous ruler, Khublai Khan, he learned of an empire still farther eastward whose wealth in gold was limitless. The information was brought back to Europe by



A JAPANESE GARDEN AT KYOTO

Marco Polo and resulted in the organisation of East Indian trading companies for the exploitation of East Asia. One of the first to take advantage of the knowledge imparted by the returned traveller was another son of Italy, Christopher Columbus, the Genoese sailor, who set out for the East and discovered America instead. Thus did America come between Japan and European invasion, turning the drift of immigration to the New World. In this way the sons of Italy have had a far-reaching effect on Japan even before any of them ever visited her shores.

The first Italians to set foot on Japanese soil were Jesuit missionaries; and as these were under the jurisdiction of the Pope of Rome, they naturally brought Japan into contact with Italy. An embassy went from Japan to Italy in 1582 and another in 1614. The Jesuit father, Sidotti, was one of the most fearless of the missionaries during the days of bloody persecution; and from him the Japanese obtained much knowledge of Western countries. After the Japanese authorities began to concede treaties of intercourse to Western countries, Italy made application for similar favours and obtained them. In the year 1866 an Italian warship arrived for this purpose and concluded a provisional treaty with the shogun, a regular and permanent treaty being negotiated the following year, along the lines of those conceded to other countries. In the year 1869 the first Italian Minister to Japan arrived in the person of Count Vittorio Salier de la Tour, who was succeeded in the following year by Count Alessandro Fé D'Ostiani. The latter remained seven years and then in 1877 Count Raffaele Uliisse Barbolani was appointed Envoy Extraordinary and Minister Plenipotentiary to Japan, during whose tenure an Italian Royal Prince visited Japan and was accorded imperial honours. In 1882 came Chevalier Eugenio Martin Lanciareze who acted as *chargé d'affaires* during the revision of the foreign treaties, and was succeeded by Count Renato de Martino in 1883. Count de Martino remained until 1894 when Count Ercole Orfini was appointed Minister to Tokyo. He continued in the Legation until 1901, when he was replaced by Count Gulio Melegari, who represented Italy in Tokyo until 1904. Count Gulio Cesare Vinci then became Minister to Japan. After the European nations raised their legations in Tokyo to embassies the first Italian Ambassador to Japan was Count Giovanni Gallina, who arrived in 1907, and was succeeded by Marquis Alessandro Guiccioli in the following year. The present Italian Ambassador to Tokyo is Count Fausto Cucchi-Boasso, who was appointed in 1916.

GERMANY

It is very natural that Imperial Germany should have long held a definite place in the mind of Imperial Japan, who has based her national constitution and many of her laws on those of Germany. In fact, the two nations have had so much in common in various ways that they have never been over-demonstrative toward each other, and the war in Europe has separated them still farther. German influence in Japan, however, has been very great, especially on the national army and on the national educational system. Diplomatically Germany was somewhat behind Great Britain and America in opening up relations with Japan. A Prussian warship arrived in Yedo Bay in 1860 and asked for a treaty of intercourse such as had been conceded to the United States and England, and though the *Bakufu* at first hesitated, the perseverance of the German admiral prevailed and a provisional treaty was finally arranged. Another German warship appeared in Yedo Bay in 1863 and proceeded to make a survey of the waters. In 1868 Germany appealed for a more satisfactory treaty with Japan, and one was granted giving full rights and privileges. Herr von Brandt, the first German representative, took up his residence in 1863 as Consul and was made Consul-General in 1868. After the unification of Germany in 1871 Herr von Brandt was appointed the first German Minister to Japan, presenting his credentials from the emperor of the newly organised empire, William I. Herr von Brandt was German Minister in Tokyo during the time that Sir Harry Parkes represented Great Britain, and the two diplomats worked together in an amicable spirit for the progress of Japan toward modern ways, even keeping up a regular correspondence after the removal of the German Minister to Peking. The next German Minister to Tokyo was Herr von Eisendecher who came in 1875 and remained until 1880, when he was succeeded by Count Doenhoff as Envoy Extraordinary and Minister Plenipotentiary. In 1879 the Emperor of Japan conferred on the Emperor of Germany the Grand Cordon of the Chrysanthemum, the highest honour within the imperial gift; and in the following year Prince William Heinrich visited Japan and conveyed to the Emperor the Order of the Black Eagle. Dr. von Holleben was accredited Minister to Japan in 1886 and Baron von Gutschmid in 1892. It was at this time that Germany united with Russia and France in ousting Japan from the Liaotung Peninsula, and diplomatic relations were much strained. Count Leyden was appointed Minister to Tokyo in 1898 and was succeeded three years later by Count von Arco Valley. When the

Legation was raised to the rank of an Embassy in 1906 the first German Ambassador to Japan was Baron Mumm von Schwarzenstein who remained until 1911, when Count von Rex became Ambassador. Count von Rex held office until the rupture of relations with Japan in 1914 on the outbreak of the war in Europe. Japan, in accordance with the terms of the Anglo-Japanese Alliance, took the side of England in the struggle, and requested Germany to withdraw from Kiaochow. Germany refused and Japan invested Tsingtau and reduced the fortress to submission.

AUSTRO-HUNGARY

THOUGH the Empire of Austro-Hungary forms one of the great powers of Europe, relations with Japan have been of such recent date that there is not a great deal to be said in the way of history. Austria, for many years both before and after its union with the Crown of Hungary, was engaged in such constant warfare that there was little time or opportunity for opening up intercourse with regions more remote. But as soon as Japan opened her ports to foreign commerce and began to make treaties with the nations of Europe, Austro-Hungary came in for similar favours.

The first negotiations for treaty relations between Japan and Austria began in 1869, the proceedings being conducted by the Japanese Minister of Foreign Affairs. The treaty concluded was signed on the 12th of September the same year, and the first Austrian Minister to Japan, Count Petz, presented his credentials and was accorded an audience by the Emperor of Japan. On the 28th of November, 1871, Japan opened further negotiations for improvement of treaty relations with Austria and a new treaty was formally signed on the 3d of December in the same year. The new Austro-Hungarian Minister was Heinrich Freiberr von Calice who remained in Tokyo until March, 1874. During the year 1873 relations between Japan and Austria were made closer by an invitation from Vienna asking Japan to participate in the great International Exhibition to be held there. This was one of Japan's earliest opportunities of introducing her arts and manufactures to the Western world, and she in turn brought back from Europe many valuable hints with regard to industry. In March, 1874, Pgnaz Freiberr von Schaeffer came as Minister to Japan, remaining three years, when he was succeeded by Herr Carl Ritter von Boleslawski during whose two years of office no important event marked the relations between the two countries. From 1879 to 1882 Herr Maximilian Ritter Hoffer von Hoffenfels was

Austrian Minister in Tokyo, after which the legation was occupied by Carl Graff Zalushi, during whose tenure of office the foreign treaties were revised. In 1888 Rudiger Freiherr von Biegeleben represented his country at the Court of the Mikado, remaining until 1895, when he was succeeded by Christoph Graf von Wydenbruch who continued to represent his country until October, 1899, during which period a revised Treaty of Navigation and Commerce was successfully concluded with Japan. Adalbert Ambrö von Adamösz, who came as Minister in October, 1899, was promoted to the rank of Ambassador in 1907, and was succeeded by Baron Guido de Call in March, 1909. In September, 1912, Baron Ladislaus Müller was appointed Ambassador to Japan and remained until the rupture of diplomatic relations in 1914 on account of the European war.

LEGATIONS

THE NETHERLANDS LEGATION

THE Dutch, as is well known, were among the first Europeans to open up intercourse with Japan. The first Hollander to set foot on the sacred soil of the gods was Derrick Gerritson who came on a ship of the Portuguese East India Company in 1585. On his return to Europe Gerritson spread the report that there was a good opening for woollen cloth in Japan and a Dutch East India Company was established in 1602 to engage in trade with Japan and the Far East. The organisation of the company was furthered by the expulsion of the Dutch from Lisbon by Philip of Spain when he became king of Portugal in 1580; and to make up for their loss of trade as distributors of spices in Europe they started out to trade with the East on their own account. Indeed, the Netherlands had been so ruthlessly pillaged by Spain that the only hope of the country was on the sea whence the people endeavoured to repair their shattered fortunes by trade. Dutchmen arrived in Japan on the same ship with Will Adams, the Englishman; and one of these, Jan Yoosen van Lodenstein, was employed as an interpreter by the shogun, but he fell into debt and bad habits and was finally banished the country. He has left his name in Tokyo, however, Yalsucho in Nihonbashi, the place where his house stood, being called after him. The first Dutch ships that came to Japan were welcomed and given permission to trade where they would, and from 1608 to 1638 there was unrestricted trade between Japan and Holland; but when foreigners were finally banished the Dutch were confined to Nagasaki and allowed to trade when all other foreigners except Chinese had been driven out. During



A WELL KNOWN SPOT NEAR THE IMPERIAL HOTEL, TOKYO

the seventeenth century Dutch ships came regularly to Nagasaki, save toward the end, when they had carried away so much gold that only two a year were permitted to arrive; and as these carried American sailors to avoid seizure by the English, the Japanese became suspicious of them and serious complications threatened. Up to the middle of the nineteenth century the Dutch settlement at Nagasaki was Japan's only means of communication with the outside world. In this

way, however, sufficient knowledge was acquired to prepare Japan for the subsequent intercourse forced upon her by Western nations. Among the Dutchmen at Nagasaki there were some distinguished scholars, such as Kaempfer and von Siebold, who imparted stores of knowledge to Japan and made Japan known in the Western world. In 1860 a Dutch subject in the employ of the American Legation as secretary and interpreter, Mr. Huesken, was assassinated. The first Consul



METROPOLITAN POLICE OFFICE AND IMPERIAL THEATRE, TOKYO

from the Netherlands came to Japan in 1868 in the person of Herr van Vorsblok and he was followed by Herr van Doerfen in 1871, who also acted for Norway and Sweden. He was the first foreign representative in Tokyo to call at the imperial palace on New Year's Day to offer felicitations to the Emperor, a custom subsequently adopted and since continued by all foreign representatives in Tokyo. The first treaty between Japan and Holland was concluded in 1856 shortly after the opening of the country, this being replaced by another in 1866 and this again was changed, when the foreign treaties were revised and consular jurisdiction abolished. One of the most popular representatives of the Netherlands in Tokyo was Herr J. H. van Royen who remained until the appointment of the present Minister, Baron Dirk van Asbeck. The councillor of the Dutch Legation, Herr Léon van de Polder, is one of the oldest and most respected diplomatic officials in Tokyo, having been in office there for a great many years.

THE SPANISH LEGATION

SPAIN was one of the first European nations to have communication with Japan,

her merchants and missionaries arriving about the middle of the sixteenth century. The saintly Francis Xavier landed near Kago-shima in 1548 and from that time there was a steady influx of missionaries until, in half a century, there were nearly a million Christians among the Japanese. These Spanish missionaries and merchants gave Japan her earliest authentic knowledge of Europe and of Western civilisation. But through the jealousy of the Portuguese the Japanese authorities began to hear of Spanish aggression in Mexico, South America, and the Philippines, and this, together with the adverse attitude of the Spanish missionaries to Japanese laws and morals, aroused suspicion in the minds of the authorities and finally all foreigners were banished the country except the Dutch and Chinese. The expulsion of the missionaries was not accomplished without persecution of the most bloodthirsty nature, an account of which will be found in the article on Religion elsewhere in this volume. One can not refrain from seeing in the awful sufferings of the Spanish missionaries in Japan something of the Nemesis of fate for the tortures of the "Holy Inquisition" in Spain itself. Not-

withstanding his determination to rid the country of foreigners, the shogun had no desire to force a rupture of relations with Spain, and an embassy was sent to Europe in 1614 with the idea of seeking an audience with the King of Spain as well as proceeding to Rome to see the Pope. In 1609 a Spanish ship bearing Don Rodrigo, then governor of the Philippines, was wrecked on the shores of Japan, when the castaways were cordially received and kindly treated, being allowed to build a ship under the direction of the English exile, Will Adams, in which they sailed for Mexico carrying with them a Japanese envoy to the King of Spain, with a special request that mining engineers be sent to Japan. From the time of the enforcement of the exclusion policy in 1623 down to the period of opening Japan to international intercourse, there were no further relations with Spain; and when a treaty was asked for it was cordially conceded by the same shogunate that had broken off all relations with Spain nearly two centuries before. The new treaty with Spain was signed on the 28th of September, 1868, since which date relations between the two countries have been of the best. The various ministers that have



THE NIHONBASHI BRIDGE, TOKYO



THE GOLF LINKS AND CLUB HOUSE AT ROKKOSAN

represented Spain at the Court of the Mikado have been well received and have left a very pleasing impression on Japan. The present Spanish Minister to Japan is Don José Caro y Szécheuyi.

THE PORTUGUESE LEGATION

AFTER the famous Portuguese navigator, Vasco de Gama, made his way into the Indian Ocean around the Cape of Good Hope in 1497 his country soon established itself in the East, taking the trade in silks and spices from the Arabs and Venetians. The adventurers in time found their way to the shores of Japan. The first natives of Portugal to reach Japan were Anthony de Moto and two companions who were cast ashore by the wreck of a Chinese junk in 1542; and the following year came Mendez Pinto, also being driven ashore by contrary winds. From him the Japanese first learned of the existence of firearms, and one can imagine the astonishment and awe of the crowd that gathered to see him put his iron tube to his shoulder and bring down a bird. The people at first believed that the energy exerted by the weapon was due to enchantment or magic. Pinto and his men were forthwith treated as wonder-workers and borne in palanquins through the town like daimyo. The musket was finally presented to the daimyo, who sent a present of 1,000 *tales* of silver in return. The Portuguese not only taught the Japanese how to use firearms but how to manufacture them. It was this advantage which won an opening for all foreigners who arrived in Japan afterward. It was Pinto who opened the way for the coming of the missionaries;

for during his first visit in 1543 he took away with him to Goa a Japanese who learned Spanish and returned as interpreter with Francis Xavier in 1548, Pinto also accompanying them. From this time all Portuguese ships coming to Japan carried two commodities: firearms and friars. All were successful until the arrival of the Franciscans

from Manila, when jealousy broke out and backbiting created suspicion among the authorities. The rivalry of the Franciscans with the Portuguese Jesuits was further accentuated by rivalry between the Spanish and Portuguese merchants, finally leading to the banishment of religion and trade alike.

For some ninety years after the edict banishing foreigners no Portuguese ship ventured near the shores of Japan, and the one that did appear later was promptly dismissed with a copy of the edict. Intercourse between Japan and Portugal remained quiescent until the opening of Japan to Western nations, when the usual treaties were negotiated and signed between the two countries. This was in the year 1859, when a Portuguese ship sailed into the Bay of Yedo and requested a treaty such as had been accorded the United States. This was followed by a more permanent treaty in 1862. In 1873 Sgr. Bieono San Shanwalico, the first Portuguese Minister to Japan, arrived in Tokyo and was duly accorded an audience by the Emperor. Portugal amicably acquiesced in Japan's desire for a revision of her foreign treaties, and Portugal agreed to the abolition of her extraterritoriality in 1892, being the first of the Occidental nations to abandon consular jurisdiction in Japan. At present Portugal is represented in Japan by Sgr. Cesar de Sousa Mendes, as *chargé d'affaires*.



THE UNITED STATES LEGATION AT TOKYO

THE BELGIAN LEGATION

AT a time when other European countries were pushing their interests in the Far East Belgium was subject to Spanish rule, passing successively into the hands of France and Austria; and later she united with Holland when that country was extending its sea trade eastward, though there is no record to show how far Belgium shared in this. After Belgium separated from Holland and elected Prince Leopold of Saxe-Coburg as her king in 1831, she began to take more interest in overseas trade. But formal negotiations for a treaty with Japan were not begun until some time after the other powers had achieved this end. A provisional treaty was agreed to in 1866 and in 1870 the first representative of Belgium, M. Auguste Kint, arrived in Tokyo, and was succeeded in 1873 by M. Carl de Claut. Japan was invited to participate in the International Commercial Congress at Brussels in 1880, and in the same year the King of Belgium conferred on the Emperor of Japan the Order of Knight of Leopold. When the conference for the revision of foreign treaties was held in Tokyo in 1886 Belgium was represented by M. George Martins, and a new treaty was concluded with Belgium in 1900. Among the various distinguished citizens of Belgium who have represented their country in Japan none has been more favourably known than the late Baron d'Anethan, who was for many years the *doyen* of the diplomatic corps in the Japanese capital. The present Belgian Minister is Count della Faille de Leverghem, who has occupied the Legation since 1910. He was born in 1871 and entered diplomatic life by being appointed *attaché* to the Legation at Berlin in 1893, and secretary at Lisbon in 1894. He was promoted to a similar position at Rome in 1898 and again to Berlin in 1900, being raised to the rank of councillor in 1906. From this time until 1909 he was councillor at the Belgian Legation at The Hague, coming to the Belgian Legation in Tokyo as Minister in 1910. The Belgian Minister bears the royal decoration of a Knight of the Order of Leopold, and the First Class Order of the Rising Sun has been conferred upon him by the Emperor of Japan. He holds numerous other orders from Belgium as well. The Countess was a daughter of M. Maskins, Belgian Minister to Rome, and there are two children. The first secretary of the Belgian Legation is M. Lemaire de Warzée d'Hermaile.

THE SWEDISH LEGATION

WHILE the Northmen were the greatest sailors of the early European world, they did not find their way to the Orient as soon as their southern neighbours, the Dutch; and Sweden did not open relations with Japan

until 1868, when negotiations were begun for the conclusion of a treaty, which was signed on the 7th of November, 1870. This treaty was revised and enlarged in 1896, the same being true of Norway which was united with Sweden at this time. Relations between Japan and Sweden have always been very cordial; and when the distinguished traveller, Dr. Sven Hedin, visited Japan in 1910 he was accorded a most enthusiastic reception. Japan sent delegates to the Olympic Games in Sweden in 1912. Until the present war Japan has drawn her supply of wood pulp largely from Sweden.

The present Minister of Sweden in Tokyo is M. Gustaf Oscar Wallenberg, who arrived in 1907, and represents his country at Peking as well. M. Wallenberg was educated as a naval officer and served in that capacity at home, later becoming a member of the Swedish Parliament, and serving on many royal commissions. After his promotion to the rank of captain in the royal navy of Sweden he was appointed Minister to Japan and China. Captain Wallenberg holds many distinguished orders, including First Class Order of the Swedish Polar Star, the First Class Order of the Rising Sun, and the First Class Chinese Double Dragon, as well as various French and Spanish decorations.

THE NORWEGIAN LEGATION

RELATIONS between Japan and Norway are included in those with Sweden, and since the separation of Norway from Sweden the representative of Norway in Japan has been Baron d'Anker, acting as *chargé d'affaires*.

THE CHINESE LEGATION

THE beginning of relations between Japan and China must be placed far back in the mists of prehistoric time; for they are as old as those of Britain with her ancestral shores across the *Oceanus Germanicus*. The first historic mention of diplomatic intercourse with China is in the time of the Emperor Suin, 40 A. D. The Han dynasty of China did all in its power to encourage intercourse with Japan. We have mention of presents brought to the Emperor of Japan in the middle of the third century A. D., which suggests diplomatic relations. The influence of Chinese literature and art as well as Buddhism brought the two countries closer together; but China's attempted invasion of Japan in the thirteenth century and Japan's attempted invasion of China in the sixteenth century show that diplomatic relations were never intimate after Japan secured her independence. A close study of the frequent embassies exchanged by the two countries between the years 600 A. D. and 1600 A. D. will show the truth of the last statement.

These embassies, which were most elaborate and expensive in the eighth and ninth centuries, declined after the tenth century, with the rise of national autonomy. The twelfth and thirteenth centuries in Japan were taken up with the constant clash of mighty clans, and there was no time for foreign diplomacy, though China intruded by an abortive invasion. In the seventeenth century when European ships were trading with Japan, those of China were accorded similar privileges, for it was a policy of the shoguns to keep the peace with China.

When Japan consented to negotiate treaties with Western powers China was granted a like privilege, an agreement was concluded between the two countries in 1869, and the first Chinese consul arrived in Japan in 1877. Disputes with China over Formosa occurred in 1874 and over Korea in 1894, the latter trouble leading to war. In recent years relations between Japan and China have not been overcordial, chiefly owing to Japan's policy of seeking to control China so as to prevent foreign concessions, on the score of Japan's own safety. The present Chinese Minister in Tokyo is Mr. Chang Tsung-Hsiang, who was born in 1877 and educated at the University of Peking and in Tokyo. In 1910 he became Commissioner of Police in Peking, and was Chief of the Supreme Court in 1913, becoming Minister of Justice in 1915. The following year he was appointed Chinese Minister to Tokyo. The first secretary to the Chinese Legation is Mr. Wong Hung-Nien.

THE SIAMESE LEGATION

JAPAN opened international relations with Siam in much the same way as she did with Portugal, Spain, and England, through her traders and merchant adventurers of the sixteenth century. Japan learned about Siam from the Spanish and Portuguese traders and missionaries coming to her shores, and many Japanese began to find their way to Siam. In 1605 it is recorded that the Shogun Ieyasu sent a letter to the King of Siam demanding tribute, and another missive five years later asking for guns and ammunition. The story of early Japanese adventure in Siam reads like a tale of the Arabian Nights. The Japanese settlement there was so large and influential that during a rebellion the Japanese aided the king in suppressing it, the king giving Yamada Nagamasa, the leader, his daughter as a reward for his valour. In 1625 the ruler of Siam sent an envoy to Yedo to thank the shogun for the assistance rendered by the Japanese. The Japanese, however, became too much for the Siamese and they were later banished from the country; which



THE BRITISH CONSULATE AT YOKOHAMA

did not much matter to the shogun, as about this time he issued an edict prohibiting all his subjects from going abroad. Thus from the middle of the seventeenth century to the year 1875, when negotiations were reopened between them, there was no formal intercourse between Tokyo and Bangkok.

There was no definite outcome of the first negotiations with Siam, and not until Prince Deva Ouguzé arrived in Japan in 1887 were formal relations fully restored. The prince presented to the Emperor of Japan the Siamese Order of the White Elephant, and in return received for the King of Siam the Order of the Rising Sun. From that time the government of Siam began to employ Japanese, and the relations have been most cordial. The present representative of Siam at the Court of the Mikado is Phya Chammong Dithakar, who came in 1911. He was born in 1874, being the son of a former Minister of Foreign Affairs, and was educated in Siam and in England, entering diplomatic service in 1897. He became secretary of legation at Tokyo in 1901, when he also acted as *chargé d'affaires*. He was transferred to London in 1903 and acted as *chargé d'affaires* at Paris in 1904, returning to London in 1905. In 1907 he was transferred to Petrograd where he remained until being appointed to the consular bureau of the Foreign Office in 1909, after which he was appointed Siamese Minis-

ter to Japan. The Siamese Minister holds several distinguished decorations, including the Fourth Class Order of the White Elephant and the First Class Order of the Rising Sun.

THE MEXICAN LEGATION

How early Japan and Mexico had more or less distant relations is a matter of speculation; but there is good reason to believe that Japanese drifted to the shores of that country in prehistoric times as well as subsequently, and it is altogether likely that the ancestors of the tribes that peopled North and South America came from Asia. At any rate the archæology of Mexico and Central America is more suggestive of Japan than of any other country. But Japan had no formal knowledge of Mexico until the Spanish came to her shores in the fifteenth century. During the Tokugawa period Ieyasu was anxious to promote good relations with Mexico for reasons of trade, and even sent for miners from that country. The first treaty between Japan and Mexico was negotiated in January, 1888, the document being signed at Washington by the Japanese Minister there and a representative of Mexico. Since then relations between the two countries have been very intimate, indeed, so much so as to have aroused suspicion in some quarters. The present Minister of Mexico in Tokyo is M. Manuel Perez Romero, who has been

Envoy Extraordinary and Minister Plenipotentiary since 1916. M. Romero belongs to an old family of Mexico and was educated at home and at Stanford University, California. On the election of his brother-in-law, the late Francisco Madero, as President of Mexico, M. Romero entered politics, taking a prominent part in the revolutionary movement initiated by President Carranza. Before being appointed Minister to Japan M. Romero was a member of the Mexican Legislature and Governor of the State of Vera Cruz. The first secretary of the Mexican Legation is M. Manuel C. Tellez, who acted as Mexican consul in various countries before coming to Japan.

OTHER LEGATIONS

THE remaining legations in Tokyo are of those nations that have but recently entered into close relations with Japan and keep usually but one official in residence. These are:

The Danish Legation: Minister, Count P. Ahlefeldt Laurvig.

The Swiss Legation: Minister, M. Ferdinand de Salis.

The Argentine Legation: Minister, M. Francisco Ortiz.

The Brazilian Legation: Minister, E. L. Chermont.

The Chilean Legation: Minister, M. Francisco Rivas Vicuna.



IKUTA TEMPLE, KOBÉ

VII. THE DIPLOMACY AND FOREIGN POLICY OF JAPAN

By D. J. EVANS, Managing Editor of "The Japan Chronicle"

THE OPENING OF THE PORTS—THE RECOGNITION OF JAPAN AS A GREAT POWER—JAPAN'S POLICY IN KOREA—JAPAN'S POLICY TOWARD CHINA—JAPAN'S SOUTHWARD EXPANSION

SOME twenty years ago, when that well-known figure in Japanese politics, Marquis Okuma, was Minister for Foreign Affairs, he delivered some *obiter dicta* on the subject of diplomaey which may well serve as an introduction to this brief sketch of Japan's foreign policy during the last sixty years. The then Foreign Minister said: "Diplomacy is justice. It may perhaps be well sometimes in diplomacy to be entrenched within fortifications, but I do not intend so to shield myself. I shall, on the contrary, be guided by a spirit of perfect frankness. Adhesion to this policy has, I think, been the secret of Japan's success."

Much water has flowed under the bridges since this speech was made, but probably Marquis Okuma would say, if he were questioned to-day, that what he said in 1896 exactly and precisely represented the views he held in 1916 as Premier, the notoriously unjust and unfrank Twenty-one Demands he made upon China notwithstanding, of which mention shall be made later.

In outlining Japan's foreign policy and diplomacy during a period of sixty odd years, it will be convenient to divide the review into three sections: First, from the arrival of Perry to the abolition of extraterritoriality and the Sino-Japanese War; second, from that date down to the Russo-Japanese War; and third, from that great struggle down to the

time of writing. All three periods have their own peculiar and particular interest, the first as showing the gradual awakening of Japan, the second as showing the consequences of that awakening, and the third as indicating more or less clearly the line of Japan's future development.

It may be of interest to devote some little space to sketching Japan before the arrival of the Perry Expedition, which, of course, was not the first time that American ships had entered Japanese waters. During the first half of the nineteenth century the number of American vessels engaged in sealing in the northern Pacific rapidly increased, and from time to time they put into Japanese ports, although the country was not open to foreign trade. Sometimes these visits were due to stress of weather, and ships made for the nearest port in order to get food or new tackle. Sometimes foreign ships would call, to land Japanese fishermen carried out to sea by storms and rescued by a foreign ship. There is reason to believe that in some cases it was not altogether the humane desire to restore to his fellow countrymen an unlucky castaway which prompted the master of a foreign ship to make for the coast of Japan. Enterprising men were the shipmasters of those days, and the prospect of doing a little prohibited, but profitable, trade with the Japanese probably counted for much in con-

sidering whether the ship's course should be changed, and her head pointed direct for the coast of Japan to land two or three fishermen. The attitude of the Japanese toward these intruders, however, was not at all cordial; shipwrecked foreigners were sometimes treated well, but often with much harshness; unarmed foreign ships were usually fired upon, but men-of-war were received in quite a different spirit. They were towed in and out of harbour without charge, and so long as they did not wish to enter into negotiations, provisions were supplied free on the understanding that they left at once. The delicate distinction shown in the manner of receiving armed and unarmed strangers—equally unwelcome—is decidedly interesting.

THE OPENING OF THE PORTS

It was about 1830 that the question of opening trade relations with Japan was actively discussed in America, and after various unsuccessful preliminary efforts in this direction, Commodore Perry in 1852 was instructed to proceed to Japan on a threefold mission—to make arrangements for the better treatment of shipwrecked Americans landing in Japan, to obtain permission for American ships to call at one or more ports, and to seek the concession of a coaling depot. The story of Perry's mission is so well known that it need only be briefly touched upon here. His

fleet of four men-of-war sailed into Uraga, Tokyo Bay, in July, 1853, and having explained his mission, Perry sailed away nine days later, intimating to the Japanese that he would return in the following spring with a larger squadron. In February, 1854, he arrived with six ships, and at the end of the following month Japan opened relations with a foreign nation by signing a treaty opening the ports of Shimoda and Hakodate to American ships. This treaty, however, did not give American citizens the right of residence in Japan; it merely provided for American ships entering the two ports named, and landing goods and loading other goods in exchange. As a matter of fact, neither Shimoda nor Hakodate were places which offered much prospect of commercial development. It was a concession, however, which though not particularly valuable in itself, was an important one inasmuch as it placed relations between Japan and a foreign country on a new and regular footing. Mr. Gubbins (one-time Secretary of the British Legation in Tokyo) quotes a Japanese authority to the effect that the men who negotiated this treaty with Perry took credit to themselves for having conceded so little, an example of one-sided "reciprocity" which has been frequently repeated, and they also prided themselves upon having reached a settlement with Perry, without having answered the letter from the President of the United States, which Perry had handed to the Japanese on his first appearance in 1853. Further satisfaction was expressed at the fact that the whole affair had been arranged without the members of the council being called upon to place their seals upon any document, which "they thought was a worthy upholding of Japan's dignity."

Seven months after Perry obtained the concessions above-mentioned, Admiral Stirling (who was accompanied by four warships) obtained a concession for Great Britain whereby Nagasaki and Hakodate were opened to British ships for supplies and refitting. No right of residence was granted, and it was actually stipulated that "no high officer coming to Japan should alter" the treaty which made the meagre concessions mentioned. Mr. Gubbins says this was evidently intended to place on record the fact that the terms of the convention marked the high-water mark of Japanese concessions. Certainly the British Admiral was content with very little, for although there was a most-favoured-nation clause in the treaty, it was also stipulated that this was not to apply to the advantage accruing to the Dutch and Chinese from their existing relations with Japan. Next came a Russian Admiral with four warships, and in due course Shimoda, Hakodate, and Nagasaki were opened



COMMODORE MATTHEW C. PERRY

to Russian trade. There was another important feature of the first Russo-Japanese Treaty, however, inasmuch as it provided for the residence in the ports of Russian subjects with their wives and families, and for the first time the important principle of extraterritoriality was recognised. The following year (1856) saw the arrival of Mr. Townsend Harris in Japan as the first American Consul-General, a very unwelcome visitor. The Japanese understood that the

treaty made with Admiral Perry provided that a Consul should be appointed by the United States only if some difficulty arose between the two governments, and no difficulty having arisen they deeply resented the coming of Townsend Harris. This was foreign invasion at last, and every form of annoyance and aggravation was resorted to in the hope of exhausting the American emissary's patience and forcing him to return to Washington disappointed and defeated. An

appeal to the commander of the warship on which Mr. Harris crossed the Pacific, to take the undesired visitor away, proving ineffective, the Japanese resorted to a deliberate plan of passive resistance amounting to boycott. Despatches were unanswered, and inquiries for information evaded. After ten months of prevarication and procrastination on the part of the Japanese, Mr. Harris was able in June, 1857, to conclude a treaty amplifying that made by Commodore Perry, opening the port of Nagasaki in addition and establishing the principle of extraterritoriality. Realising the desirability of a still broader understanding, Mr. Harris resumed negotiations with the Japanese authorities, and on July 29, 1858, a treaty was signed at Kanagawa (in Tokyo Bay), on board an American warship, which amplified and expanded the preceding agreement. Lord Elgin next made a treaty for Britain, and the French, Russians, and Dutch concluded similar treaties, closely following the lines of the British documents. On July 4, 1859, Mr. Townsend Harris landed from the U. S. A. *Mississippi* at Kanagawa, accompanied by the captain and officers, and at noon the Stars and Stripes was hoisted to mark the opening of Yokohama to foreign trade. The British Consul-General (Sir Rutherford Alcock) and other foreign officials were present on this notable occasion, which marked the successful termination of many months of patient and painstaking negotiations in the face of the most tremendous difficulties. In her first experiment in diplomacy, Japan's seclusion policy was defeated; the undesired alien won his point, and Japan was opened to foreign trade and residence.

THE RECOGNITION OF JAPAN AS A GREAT POWER

WITH the resumption of foreign intercourse after more than two centuries of seclusion it became necessary for Japan to frame another foreign policy. At first that policy was somewhat obscure owing to the strong opposition of a section of the Japanese to the foreign barbarian. This feeling was most marked among the "two-sworded men" of *samurai* class; the common people as a whole were friendly enough, but the warrior class were very bitter in their attitude toward the foreigners. Loyalty to the Emperor, in their opinion, demanded that the intruders be driven out of the country, but the wiser among the nation had seen—or at least had heard of—the tremendous strength and resources of the Western Powers, and realised that any attempt to force the foreigners to surrender the rights they had gained by treaty (supported by warships) would result in swift and stern retribution. Those who

had any doubts were convinced by the bombardment of Shimonoseki by American, British, French, and Dutch warships. Japan's next foreign policy, then, was one of imitation. Experts were engaged in Europe and America to build railways in Japan, to establish telegraphs, lighthouses, to teach in schools, to act as naval and military instructors, as jurists, as financial advisers, and in a hundred different ways to guide and assist Japan to follow in the steps of the nations with whom she had suddenly been brought in contact. The Japanese were apt pupils, and rapidly learned the Western arts introduced to them by the expert foreigners engaged by the Japanese Government to expedite the change from feudalism to modernism. So rapid was the process of advancement, indeed, that in 1872 we find an effort being made to take advantage of the opportunity given for revising the treaties with foreign powers, Japan's principal object being to obtain the abolition of extraterritoriality. Prince Iwakura was sent to America to conclude a new treaty to this end, but after a year returned with nothing accomplished. Japan's claims were regarded as premature. Under the extraterritorial system, foreigners residing in Japan in the settlements set apart for them, were under the jurisdiction of their Consuls. A foreigner committing a criminal offence, or engaging in civil proceeding as plaintiff, had the law of his own country administered by the resident Consul, but Japanese were never tried by foreign judges, and any process against them was conducted through the Japanese authorities. One of the first aims of Japan's early foreign policy was to bring about the abolition of this right of extraterritoriality, secured by the treaties with the various powers, and the achievement of that aim marks an important stage of Japan's diplomatic policy.

A well-known American writer on things Japanese, Dr. Griffis, has given quite a misleading account of the history of treaty revision. In his work entitled "Townsend Harris in Japan" the American writer says that Japan's efforts at obtaining a revision of the treaties were steadily repulsed by the Treaty Powers, and "her rights trampled upon and her wrongs multiplied by a delay every hour of which is injustice." Dr. Griffis describes the extraterritorial system as "the intolerable burden under which the governments of both Yedo and Tokyo groaned for a generation." Yet Mr. Townsend Harris has put it on record that the Japanese without any demur whatever agreed to his proposition that Americans should be tried by their Consul and punished in accord with American law,—indeed, it is difficult to see

how the case could be otherwise, seeing that Japanese law, as law is understood by foreigners, was practically non-existent. Viscount Enomoto, who at one time was Japan's Foreign Minister, speaking some years ago in the Diet, admitted that when the treaties were made for the "intolerable burden" which Dr. Griffis says was placed upon Japan, his complaints regarding the delay in restoring to Japan complete autonomy over foreigners resident within her dominions are equally unfounded. It was the vacillating attitude of the Japanese themselves which caused the delay. From 1880 to 1890 negotiations were going on between Japan and the Treaty Powers in regard to treaty revision, and more than once a settlement was almost reached, when the Japanese suddenly shifted their ground, and the task had to be commenced afresh. The despatches which passed between the British Government and its representative in Tokyo show clearly that liberal concessions were made to Japan. In 1889 the counter-draft of a treaty was sent from London to Tokyo in which practically all the Japanese claims were conceded. Then came the attack upon Count Okuma (now Marquis, who was then Foreign Minister), and the would-be assassin's demonstration of national hostility to the Japanese Government's attitude led to the resignation of the ministry and to further delay in the negotiations for treaty revision. To blame the Treaty Powers for the long delay in carrying out this first big move in Japan's foreign policy is quite unfair, but it is a charge frequently made by Japanese writers and by certain foreigners whose studies of Japanese affairs show an extraordinary bias against the foreign point of view. Professor Chamberlain—than whom Japan has no warmer friend, and whose place as an authority on things Japanese is beyond question—sums up the situation very tersely. Some months after the attack upon Okuma the Japanese press started a new slogan, *taito jōyaku kaisei*, on treaty revision on a footing of equality. This was the second classic example of "one-sided" reciprocity, for "on examination it turned out to mean simply that the foreign powers should concede everything, and Japan nothing at all." Incredible though it may seem, in due course Japan won her point, and thus revenged herself upon those who had disturbed her seclusion some forty years previously.

"The year 1894-5 may be said to mark a turning-point in the modern history of Japanese diplomacy," writes a professor at Waseda University, Tokyo, in a brief essay on the history of Japanese diplomatic affairs, upon which subject he is regarded as an authority. The Sino-Japanese War "arising out of the

rival claims of both countries on Korea," was one notable event of this period, and the other was "that after repeated failures Japan finally succeeded in revising the humiliating treaties with the powers." It has been already shown that the treaties were not humiliating to Japan, and that the repeated failures of negotiations for revision were due, not to the injustice and illiberality of the Western nations, as Dr. Griffis says, but to the attitude of the Japanese Government. Let us now turn to consider the "rival claims" to Korea, and what came of them, for this forms another important chapter in the history of Japan's foreign policy.

JAPAN'S POLICY IN KOREA

It was the Ming dynasty in China that placed the Korean emperors back upon the throne after Hideyoshi's expedition from Japan at the end of the sixteenth century, and thus gave China the rank of suzerain power in the peninsula. In this respect, when Korea was opened to foreign trade in 1876, the position of that country *vis-à-vis* China and Japan was just what it was nearly three hundred years previously. The rapid adoption by Japan of Western ideas, and the abandonment of so many customs and prejudices more or less shared with Korea and China in feudal days, was regarded with grave disfavour by the conservative Chinese and Koreans. Moreover, from the very beginning of the Meiji era in 1868 the military party in Japan adopted an aggressive attitude toward Korea, though there were other influential men who tried to restrain this feeling, which they foresaw would lead to serious complications. The suspicions of the Koreans steadily developed into manifestations of fear and open hostility. Probably they realised that with the increasing strength of Japan, there was increasing danger to their own independence. If they did realise this, their expectations were fulfilled; if they did not realise it, they went the right way about it to hasten the fatal day.

A series of outrages occurred in Seoul in the early eighties, of which Japanese were the frequent victims, together with many of the more progressive Koreans. These men, rightly or wrongly, were regarded as renegades by their conservative fellow-countrymen. Some of them probably were, but there were others who were progressive without being so "pro-Japanese" that they were willing to further Japanese aims in the peninsula. The conservative Koreans, however, made no fine distinctions of this kind, and so the muddle went on. Irritation in Japan at the unsettled state of affairs in Korea steadily increased until in 1894—the year in which judicial and tariff autonomy was conceded by

Britain (followed by other powers) to Japan, as already mentioned—the crisis came. A secret society known as the Tonghaks—suspected in some quarters of being agents of Japan—started to make trouble in Korea, and the troops being unable to control them, the Korean Government appealed to the Chinese Resident at Seoul for help. Before troops from China could arrive on the scene Japanese troops had taken up positions around Seoul (by virtue of an agreement with China which provided for Chinese and Japanese troops in equal number to maintain order), and the Korean Government was informed that unless conditions were at once reorganised, Japan would undertake the task herself. At the same time Japan notified China that the latter's suzerainty over Korea was not recognised. As proof of this, a transport loaded with Chinese troops on their way to Seoul was intercepted and sunk, and a week later Japan formally declared war against China. The fighting lasted about a year, but in spite of Japan's easy victory, the political situation in Korea was much the same as before the war, owing to the frequent plots and counter-plots peculiar to Oriental politics, as the result of which the men who were in power when Japan intervened, returned from their hiding-places and resumed authority. This was unfortunate indeed for Japan's policy in regard to Korea, and an attempt to improve matters led to still more disastrous results. Viscount Miura was sent to Seoul as the Japanese Minister Plenipotentiary, and five weeks after his arrival the Queen of Korea was murdered, together with a number of high court officials and the queen's women attendants. As the result in large measure of the action taken by the British Minister at Seoul, Viscount Miura was recalled to Japan and with a number of others was put on trial. The Court found that the conspiracy against the Queen of Korea was formed and the actual crime instigated by the Japanese Minister, the First Secretary in the Legation, and the Adviser to the Legation. But, the judgment of the Japanese Court proceeded, "there is not sufficient evidence to prove that any of the accused actually committed the crime originally meditated by them." In other words, though the accused concocted the plot and hired the assassins, and though the selected victim was undoubtedly murdered, the guilt of the conspirators was not established to the satisfaction of the Court. Whether persons of lesser importance than high diplomatic officials would have been discharged in similar circumstances, the reader may judge. The finding of the Hiroshima Court, of course, deceived no one, and before long the frightened Korean King,

accompanied by the Crown Prince, fled from his palace to the Russian Legation in Seoul, which was strongly guarded by Russian troops and marines. Chinese influence had indeed been completely crushed in Korea, but in its place Japan now found a still stronger influence—that of Russia. Mr Putnam Weale, in summarising the situation at this stage, says that "eighteen months after the war with China, Russia was entrenched more powerfully than China had ever been in Korea—thus making the net results of a conflict which had cost Japan at least £30,000,000 absolutely nil." A new start had to be made by Japan with a view to retrieving this costly blunder in her Korean policy. Of the events leading up to the Russo-Japanese War it is not necessary to dwell at much length, since the facts are better known than those sketched above dealing with the previous decade. Russian politicians, naval and military men, and financiers visited Korea in turn and started their own little schemes to their own ends. The Japanese, however, were not idle, and profiting by the lesson of the Miura *contretemps*, set to work in another direction. They succeeded at last in getting the Korean royal family away from the Russian Legation, and when the king said he wished to become emperor, it was Japan who first recognised the new title, knowing that whatever he might call himself, the last thing the nominal ruler of Korea would do would be to rule. A few successful railway deals, and the next thing was a Russo-Japanese convention recognising the sovereignty and independence of Korea, and pledging the signatories not to interfere in Korean internal affairs. This was in 1898, but there were men in Russia who saw that Japan was making headway in Korea with various industrial and commercial undertakings, and considered that Russian prestige was consequently in danger. During the next four or five years Seoul was the centre of constant intrigue and counter-intrigue between Russian and Japanese interests, but something of the sort was also going on in Europe, where Japan was playing off Russia and Britain against each other. The manner in which the Anglo-Japanese Alliance was concluded has been told by a Japanese statesman, Count Hayashi. Only part of this extremely interesting story was published in Japan, the newspaper which commenced to publish the deceased diplomat's memoirs being warned by the Japanese Government that further disclosures would not be permitted. The whole story was made public, however, in England, but owing to the war attracted less attention from a preoccupied world than it otherwise would have received.

In view of what has happened since, it is

curious indeed to note that Germany was ready at this time to make an alliance with Great Britain and Japan with the object of maintaining the peace of the Far East. The British Government and Count Hayashi (then Japanese Minister in London) both approved the idea when first mooted, but the latter seemed to change his views somewhat, and during the informal conversations that followed, the British Secretary for Foreign Affairs had occasion to remind the Japanese Minister more than once that a triple alliance would have to include one other party in addition to Britain and Japan. Count Hayashi seemed to have some suspicion of Germany's intentions, and Britain certainly had a lively fear of Russia's, for it was apprehension of the apparent imminence of a Russo-Japanese Alliance that stimulated the British Government into abandoning the long observed policy of "splendid isolation," and joining Japan in an alliance which brought the latter country into line with the Great Powers. Count Hayashi himself has told how he played on the fears of Britain in getting his own plans accepted. Finding that negotiations with the British Government toward the conclusion of an Anglo-Japanese Alliance did not make progress at the pace he desired, he cabled to his Government in Tokyo suggesting that Britain might be "stimulated" into expressing speedy acquiescence with his proposal.

Now in Japan there was another party, led by Marquis Ito, which favoured an understanding with Russia as a preliminary to an Anglo-Japanese Alliance. Ito was of opinion—and events showed his view to be correct—that an alliance with Britain would arouse suspicion in Russia. Therefore, before concluding an Anglo-Japanese Alliance, he favoured the arrangement of an understanding with Russia disposing of the various outstanding issues which were causing constant irritation in Tokyo and Petrograd. Having obtained permission from high authority to see what could be done in this direction, Ito went to Europe *via* America on what was said to be a "holiday tour." Mention of Petrograd as a holiday resort for a Japanese diplomat struck the British as rather strange, and soon it began to be rumoured that Ito was on his way to Russia to conclude an agreement. These reports had the "stimulating" effect desired by Japan's representative in London, and before long the Anglo-Japanese Alliance was signed. Soon after, as Ito had prophesied would happen unless Russia's suspicions were first dispelled, Russia and Japan were at each other's throats in a struggle which was to decide the doom of Korea. The contest resulted in the humiliating defeat of Russia by a nation numeri-

cally and financially weaker at the outset, and further weakened almost to the verge of collapse by the tremendous sacrifices of men and money she had made. It was the incompetence and cowardice of the Russian military leaders that gave Japan the victory, but it is results that count these days, not causes.

Following close upon the moral triumph of securing an alliance with Britain came this material triumph over Russia, giving Japan undisputed control over chaotic Korea, and limited control over territory belonging to China which had been leased to Russia. Japan was now firmly established on the mainland. No longer was she merely an island empire; Korea was under her "protection," and the Kwantung Peninsula was under her occupation for the period it had been leased by China to Russia—until 1923. Captain Brinkley, a never-failing apologist for Japan in all international differences, and for years the sturdiest champion in the local and London press that Japan had, or could have had, refers in his "History of the Japanese People" to the peculiar position which Japan found herself in after the Russo-Japanese War. Speaking of the peace treaty signed at Portsmouth—another quiet yet brilliant diplomatic success for Japan—Captain Brinkley said: "Thus, Japan came to hold in Manchuria a position somewhat contradictory. On the one hand, she figured as the champion of the Chinese Empire's integrity and as an exponent of the new principle of equal opportunity and the open door. On the other, she appeared as the legatee of many privileges more or less inconsistent with that principle. Undoubtedly it was a position in which some nations would have felt embarrassed, but as nothing succeeds like success, Japan went boldly forward with her plans. Having established a protectorate over Korea in 1905, the country was wholly annexed by Japan in 1910. The independence of Korea had been guaranteed by Japan, but the tearing-up of this 'scrap of paper' was not protested against by Britain, America, or any other Great Power. Outside a few Christian missions, and a fewer number of gold-mining companies, there were no foreigners personally interested in the fate of Korea, while those who were interested politically, recognised that Japan had reached the goal she had been striving after for so long, and as nobody but a few 'ungrateful' Koreans objected, there was nothing more to be said. Her position in Korea being now effectively established, Japan began to look to her interests in Manchuria."

JAPAN'S POLICY TOWARD CHINA

To deal adequately with Japan's diplomatic policy toward China would fill a book,

and a very interesting book it would be. For twenty odd years it has been the professed object of Japan to develop Sino-Japanese friendship, but the good results of that policy are microscopic. In Japan this melancholy fact is explained in various ways: by the unwarrantable suspicions of the Chinese; by third parties who do not wish to see closer relations between the Chinese and Japanese peoples, circulating damaging reports regarding Japan's real motives; by all sorts of theories but the right one—that it is Japan's own record and attitude which stands in the way of closer relations between the two nations. In the Lansing-Ishii Agreement (which has just been concluded as these lines are being written), the world is again assured that Japan has no intention of encroaching upon the independence or territorial integrity of China, and that she pledges herself once more to uphold the commercial principles of the Open Door and "Equal opportunity." The publication of this agreement aroused much criticism in China, not because there was any objection to the maintenance of the excellent principles set forth by the American and Japanese diplomatists who framed and signed the document, but because China resented the idea of two other nations discussing the line of policy they intended to pursue in China without China being consulted in the matter at all. At first glance probably few people in America—and none at all in Japan—could see what grievance China could make out of the conclusion of this agreement between America and Japan, but a moment's reflection will show that when two nations get together to guarantee the integrity and independence of a third, who is not approached, consulted, or considered in any way, the signs and portents regarding the future of the unconsidered and unconsulted third party are not reassuring. Further, the resentment of the third party at having his affairs discussed in detail by two outsiders without his own feelings being considered is natural enough, even though the intentions expressed are of the most honourable character. But when one of these two parties is regarded with considerable suspicion, a suspicion which it must be admitted is not without justification in the light of history, the indignation with which the news of the signing of the Lansing-Ishii Agreement was received in China can be easily understood. Japan declared war on Russia to maintain the integrity and independence of Korea; that country to-day has neither integrity nor independence; it is Japanese territory, and, ruled with a rod of iron, its people are dumb, dispirited, and nationally dead. Is it to be wondered at that China



THE PRESENT IMPERIAL JAPANESE CABINET

(Upper row, left to right) Lieutenant-General GIICHI TANAKA, Minister of War—TATSUO YAMAMOTO, Esq., Minister of Agriculture and Commerce—UTARO NODA, Esq., Minister of Communications. (Second row, left to right) Viscount KOSAI UCHIDA, Minister of Foreign Affairs—TAKASHI HARA, Esq., Prime Minister and Minister of Justice—TAKEJIRO TOKONAMI, Esq., Minister of Home Affairs. (Third row, left to right) TOGUGORO NAKAHASHI, Esq., Minister of Education—Vice-Admiral TOMOSABURO KATO, Minister of the Navy—Baron KOREKIYO TAKAHASHI, Minister of Finance

is suspicious of Japanese guarantees of *her* integrity and independence?

For twenty years the necessity for drawing China and Japan into closer bonds of friendship has been preached in Japan by the most brilliant speakers and writers in the country. To-day the bonds between the two countries are as far apart as they were at the end of the Sino-Japanese War. What is the reason? The undoubted advantages of territorial propinquity, to which reference is made in the Ishii-Lansing Agreement, have not led to any closer friendship between Chinese and Japanese; on the contrary, Chinese suspicions have been deepened. True, the formal diplomatic relations between the two governments are on the surface friendly enough, especially since the fall of the Okuma Administration, but as the more observant of Japanese publicists have frequently pointed out, it is closer friendship between the two peoples, rather than between the two governments, that it is desirable to bring about. That twenty years of effort in this direction have been without result obviously shows there is some serious obstacle in the way, and it is necessary to find out where and what that obstacle is. As the result of the Sino-Japanese War the Island of Formosa was surrendered by China to Japan. The record of Japanese administration in Formosa is not an enviable one. No doubt there have been a certain number of improvements of a character likely to impress visitors; it may also be admitted that the administration is better than under the Chinese *régime*. Nevertheless, things have been done in Formosa by the bureaucratic militarism which Japan has placed in power there which are no credit to a civilised nation. The victims have been Formosan Chinese and the savage aborigines, but, moreover, the Chinese at home have seen what happened in Formosa repeated in a measure in Korea. Formosa and Korea, with the assistance of subsidies, are being exploited for the benefit of Japanese rather than of the population of those territories. All this, it may be said, is of only academic interest to China, and does not affect her individually. This is true, but the policy adopted in the territory already under Japanese control is regarded as indicating Japan's real disposition to those weaker than herself, and as shadows of coming events in closer proximity to Peking.

Long before the revolution which toppled the tottering power of the Manchus to the ground and established a republic in China, there were frequent "incidents" in Chinese territory wherein Japanese invariably figured, which led to considerable friction. A Japanese pedlar, wandering about in a part of the country where according to treaty, no

foreigner should be, is murdered by bandits, whereupon an international "incident" is precipitated. Japanese newspapers loudly demand vigorous measures against China, naturally causing deep resentment and provoking angry retorts from the Chinese press. Eventually the matter is settled by the Chinese Government paying a heavy indemnity to the relatives of the murdered man, the fact that he met his fate by disregarding international agreements stipulating which parts of the country are open to foreign trade and residence not being considered. In the civil disturbances which take place periodically in China between rival bodies of troops, Japanese frequently disregard warnings that they should keep out of danger, and get hurt. Invariably a grave international "incident" is precipitated, and just as invariably, after a long and tedious series of conferences between Chinese and Japanese officials, an indemnity is paid by the Chinese Government. Clashes in South Manchuria between Japanese police and military and Chinese authority are common; hot-heads on both sides lose their tempers, triggers are touched, and men get killed. Another international and most regrettable "incident," and another series of conferences to decide what China shall pay in cash or grant in concession as indemnity for the insult to Japan's national honour. This sort of thing has been going on in China for years, and every incident of the kind loosens the friendly bonds between the two countries which Japan is constantly declaring it is her great ambition to tighten.

The climax came in 1915, when the Japanese Government, of which Marquis Okuma was then Premier, presented a series of demands to the Chinese Government which, had they been conceded, would have made China nothing more than a dependency of Japan. These demands, of which there were twenty-one, divided into five groups, were presented to China by Japan with injunctions that complete secrecy was to be observed in regard to the demands and the negotiations arising therefrom. Special privileges were demanded for Japanese subjects, Japanese were to be engaged to "advise" China in administrative, financial, and military affairs; a Sino-Japanese police force was to be established; Japan was to be first approached when a foreign loan was required; China was to be bound to obtain a certain quantity of arms from Japan or a joint Sino-Japanese arsenal was to be established;—in short, the proposals submitted for China's acceptance (not for her consideration, be it noted) were such as threatened the sovereignty and independence of the Chinese Republic. The usual one-sidedness of Japan's diplomacy was demonstrated, Japan giving nothing in return

for what she asked. China, weakened by the constant struggles between rival factions of monarchist and republican leanings, partly as a result of the war, lacking a powerful friend in the comity of nations to support her in flatly refusing to consider the Japanese demands, struggled through negotiations with her avowed friend and well-wisher. Eventually the most objectionable demands in Group V were withdrawn by Japan for future consideration, and, stimulated by Japan's declaration of martial law in South Manchuria and by an ultimatum from Tokyo, the Chinese Government finally conceded the rest of the demands, with some modifications made by Japan in deference to the signs of irritation and annoyance shown in other parts of the world at Japan having chosen such a moment to force upon a helpless neighbour demands which no country could have conceded without loss of prestige. All this happened two years ago, but such an incident is not easily forgotten by the Chinese people. And when they read of yet another agreement guaranteeing the integrity and independence of their country—even though America is one party to the compact—they have suspicions as to what may be behind the open move. The constant friction where Chinese and Japanese officials meet, the open defiance of Chinese laws and regulations by Japanese in Manchuria and elsewhere, the moral and material support given by Japanese individuals and business firms to Chinese who are seeking to hamper the progress and weaken the power of the Central Government in Peking—all these things prevent that tightening and strengthening of the bonds of friendship between China and Japan that Japanese politicians and publicists are constantly preaching about, but do nothing to accomplish.

Enough has been said to show how Japanese diplomacy has failed in China, in spite of all the advantages of territorial propinquity. Even the young Chinese sent to Japan to study, return to their own country with anti-Japanese ideas. Prominent Japanese have repeatedly complained of this, and demanded that something should be done to check such an unfortunate tendency. The only remedy for this, as for other indications of lack of Chinese sympathy for Japanese ideas, is to indicate by practical measures and policy, the reality of those friendly feelings for China which are so often proclaimed. When men like Lindsay Russell talk about the "bankruptcy" of China, and the necessity of Japan taking over the receivership, while Viscount Ishii declares that the ideals of Japan and America are the same, Chinese must be excused if they fall into error in assuming that all international agreements affecting their vast territory are designed for China's undoing.

JAPAN'S SOUTHWARD EXPANSION

A FEW words in conclusion regarding Japan's diplomatic policy in other directions than the Far East. Some years ago there was a rather heated dispute regarding Japanese immigration to the United States. There was much wild talk in the press on both sides of the Pacific, but the two governments declined to be carried off their feet, and the Gentlemen's Agreement put matters on a mutually agreeable footing. Early this year (1917) there was some little commotion caused by Japan's protest against alleged anti-Japanese land legislation in certain States of the Union. This was another instance of that peculiar "one-sided reciprocity" of which mention has been made previously. Japan has most illiberal ideas herself regarding foreign land ownership, but promptly interferes when other States propose to enact laws for preventing aliens holding land. There were hints of "drastic action" being demanded by the Japanese people if the proposed land legislation in Oregon and Idaho was carried into effect, and on the friendly suggestion of the President to the Governors of the States concerned, further action on these measures was suspended. Japan's line of action at this time was unfortunate; America was on the eve of declaring war on Germany, and at such a moment was not disposed to argue with Japan about reciprocity in framing land-ownership laws. As a demonstration of what is fondly called "strong foreign policy" the protest was generally approved in Japan, but there is reason to believe that in America the action taken by the Japanese Government through its ambassador at Washington was deeply resented, though little was said about it by those most concerned out of a loyal desire not to embarrass the President, whose attention was being directed to important matters on the other side of the world. One or two facts in regard to the immigration question are worth special attention. *First*, the introduction of Chinese labour into Japan is resented by Japanese just as much as the introduction of Japanese labour is in California. *Second*, eminent Japanese sociologists, who have gone into the subject carefully, have frankly declared that Japanese immigrants in America have not tried to become assimilated and therefore cannot be regarded by American citizens as desirable additions to the community. When next

the question of Japanese emigration to America is brought up, these points may be argued more fully. There is a tendency just now (November, 1917) for American and Japanese public men to denounce all criticism of Japanese policies, opinions, and actions as the work of hired slanderers bought with German gold. Men who write and talk in this strain either do not know, or deliberately suppress their knowledge, that in their daily newspapers and the periodical magazines views are expressed by eminent Japanese entirely different from those served up in foreign languages for foreign consumption. There can be no suspicion of German influence behind such writings: they are written by Japanese for Japanese, and it is only by the occasional publication of translations of such articles that the outside world can get to know the real opinions of Japanese on important questions of international interest. For example, while Viscount Ishii was handing bouquets to the American people in his speeches at San Francisco, Washington, and New York, the Japanese press was expressing views of America, her people and her policy which were as uncomplimentary as they were undeserved. It is difficult to write of Japan's "policy" when such contradictions and inconsistencies are constantly encountered.

This brief and therefore incomplete review of sixty years would be inexcusably deficient without some reference to the political school in Japan which strongly advocates expansion southward. The fact that Japanese are investing largely in land in the Philippines, Java, and the Straits Settlements, gives rise occasionally to rumours of Japan's intentions in that direction, while whispers as to the ultimate fate of the Dutch Indies are frequently heard. The pioneer of this southern expansion school is Mr. Takekoshi, who has actually urged the annexation of Java by Japan, while Captain Hosaka, of the Japanese Navy, recently published a book on the Dutch East Indies in which the same idea was scarcely less plainly expressed. The Captain is of opinion that Japan finds herself compelled to develop southward, and it is of imperative necessity for her to do so. "If stable capitalists undertake proper enterprises in the South Seas *with the interests of the nation as a whole at heart*, Japan's economic development in that region will come by itself. This may at first appear [to Mr. Takekoshi and the annexationists?] a round-

about way, but it will in practice prove the shortest cut to the goal." This Captain in the Japanese Navy also expresses regret that Japan's financial resources are inadequate to a scheme of annexation, and—*mirabile dictu!*—expresses surprise and annoyance that the Dutch officials in Java regard Japanese visitors, whatever their real or assumed station in life, with considerable suspicion. The Dutch authorities are doubtless kept informed of the activities of the "southward expansionists" in Japan, and if they regard every ragged Japanese pedlar landing in Java as a possible spy, they can scarcely be blamed, even if their suspicions are unfounded. Men in similar humble guise have been found in out-of-the-way parts of China, and sometimes the suspicions held regarding their mission have been confirmed—or at least the Chinese think so.

All this, of course, is not really Japan's foreign policy. The Foreign Office in Tokyo is not to be held responsible for the movements and actions of every Japanese huckster who ventures into Manchuria, Mongolia, the Philippines, or Java with a few packets of matches and strings of coloured glass beads. Japan's foreign policy can be summed up in eight words—the maintenance of peace in the Far East. She has fought two wars to uphold that policy,—and a third, if the siege of Tsingtau can be regarded as a war.

The number of prominent Japanese publicists who urge a more disinterested method of regarding foreign affairs is unfortunately few. Even Mr. Ozaki, the representative of democracy, not long ago declared in the Diet that if Japan and Japan's agents did wrong abroad, a patriotic Japanese would conceal the fact, not publish it, even to his own countrymen.

In estimating Japan's foreign policy, it must be remembered that the country has made tremendous commercial and industrial progress within a few decades, and this, together with her military successes, have led to the creation of a feeling of national self-sufficiency. There are signs, however, of a very healthy counter-movement in the shape of sincere self-criticism, and the development of this faculty will gradually come to have considerable influence on home and foreign policy. Other nations have gone through the same evolutionary process as Japan is going through, and as they have recognised faults and remedied them, so will she.



PANORAMIC HISTORY OF THE PRIEST HONEN. A PORTION OF THE TENTH OF FORTY-EIGHT ROLLS, COLOURED. BY YOSHIMITSU TOSA, THIRTEENTH CENTURY. OWNED BY THE TEMPLE TAIMADERA, YAMATO

VIII. THE FUTURE OF JAPAN

By The HON. Y. TAKEGOSHI, Ex-Member of the House of Representatives

THE ALLIANCE OF RACES—SELF-GOVERNMENT—EXPANSION BEYOND THE SEAS—THE JAPAN-CHINA WAR—THE JAPAN-RUSSIAN WAR—LESSONS OF HISTORY

WHAT will be the future of Japan? In dealing with this question, there is a twofold argument. How shall we shape the future of Japan, and what will be the future of Japan?

Some six or seven years ago, when Viscount Motono was Japanese Ambassador in Paris, M. Lebon, the celebrated authority on evolution, discussed Japan's future with him. The trend of M. Lebon's argument was to the effect that Japan's appearance on the world's stage startled the world, like the sudden appearance of a brilliant comet in the sky, and that when we consider that no country in the world has ever before made such a sudden appearance, there is room for doubt whether Japan is not, like a comet, destined to disappear utterly below the horizon. By way of reply, Viscount Motono affirmed that Japan's appearance on the world's stage was not a sudden one, like that of a comet. Behind it there is a reason, a cause, and a history. M. Lebon then said that with regard to the future of Japan not a few people entertained the same view as he, and that though the Viscount had a certain amount of right on his side, yet to men like himself it was almost impossible to comprehend the real state of affairs. Therefore he suggested that Viscount Motono should write a book explaining why the

appearance of Japan on the world's stage was not of such an abrupt and sudden nature. The Viscount was highly interested in this suggestion, and asked me if I would not coöperate with him in writing a book with a view to the explanation of this problem. I was also keenly interested in this suggestion, and thought of making an attempt, but have been hitherto prevented by pressure of other work. M. Lebon is not the only one to hold such a view concerning the future of Japan. It is quite possible that many statesmen in European countries regard the matter in the same light.

THE ALLIANCE OF RACES

THERE is another class of men who form their ideas of the customs and manners of the Japanese from the sketches drawn for them by men of letters, poets, and travellers, and who imagine, as though they saw her in general pictures, that Japan is a poetical nation full of classical beauty and charm, and who are desirous of preserving unchanged this nation well worthy of the fame of ancient Greece. When these people are brought to the knowledge of naked facts, and learn that this picturesque, poetical nation of their dream runs electric cars, builds guns, drives motor-cars, and uses electric light, they regard the nation as rapidly changing into

one unbearably vulgar and prosaic. Among our own people, there are some who do not rightly interpret the history of their own country, and who do not take their national strength into proper consideration and who, being prompted by certain fanatical ideas, advocate the alliance of the yellow races against the white, an alliance of which Japan should be the leader, and with that object in view, they favour the partition of China. Those who argue in this strain have evidently lost their mental balance. Although they form an infinitesimally small portion of the Japanese people, they talk loud, and because they talk loud, Europeans and Americans who hear them are led to imagine that in future Japan will lead the combined force of the yellow races just as Genghis Khan at the head of the Orientals invaded Europe, and that the Japanese are a bellicose nation. Several years ago, the Kaiser drew a caricature showing Japan riding a yellow dragon (carrying on an invasion, too!) and invading Europe. The insinuation was that European countries should form an alliance against this invasion. This was no doubt a political move on the part of the Kaiser, but it was not without some foundation. In those days he watched Japan and must have been expressing what he really felt. Thus we see that diverse views are held about the future of Japan.



A RECENT IMPERIAL JAPANESE CABINET

(Upper Row, Left to Right) Baron KENJIRO DEN, Minister of Communications — Admiral TOMOSABURO KATO, Minister of Marine — Dr. RENTARO MIZUNO, Minister of Home Affairs. (Middle Row) REN NAKASHOJI, Esq., Minister of Agriculture and Commerce — Field-Marshal Count MASAKATA TERAUCHI, Prime Minister — Baron SHIMPEI GOTO, Minister of Foreign Affairs. (Lower Row) Dr. ITASU MATSUMURO, Minister of Justice — Lieut.-Gen. KENICHI OSHIMA, Minister of War — Dr. RYOHEI OKADA, Minister of Education

In my opinion, however, these views are wide of the mark. The reason is that most of these thinkers are ignorant of the history of Japan.

A nation can not be manufactured as things are made in American factories. The state is not made, but is subject to organic growth. Biology teaches us that heredity and environment govern all things, and nothing can escape their control. Then, what will be the future of Japan considered from the biological standpoint? Geology tells us that the earth consists of fixed strata, which are thin in some places and thick in others. Owing to earthquakes and volcanic action, there may be more or less irregularity in these layers, but the construction of the strata is in the main the same in all places. Such strata are not confined to geology only, but are also found in the history of mankind. In every country, the transition is made from the nomadic life to that of agriculture and from agriculture to commerce and industry. The history of every nation shows the transition from feudalism to commercialism and industrialism. The reason why Europeans regard Japan as a peculiar nation arises from their failure to grasp the fact that Japanese history has had the same strata as that of Europe. Some of our fanatical statesmen have a blind belief in Japan's position—a belief which must be attributed to their ignorance of the fact that the history of Japan has passed through the same strata as those of European history.

SELF-GOVERNMENT

For instance, some European statesmen are inclined to believe that the Japanese were practically devoid of the idea of self-government and that they have only come to possess it because they have learned the self-government system by coming into contact with Europeans. This could hardly be the case. However clever a gardener may be, he can not graft a bamboo branch on the root of a tree. Had there not been the idea of self-government already in existence in this country, the imported and acquired European ideas would surely have perished. Therefore, self-government such as we have at present is none other than what has come down to us from our own history. It is only the form that has been taken from Europe and America. In Europe, there is a free city of Hamburg, which is a city built by merchants opposed to military government, and which has grown up to be a State in full possession of military and legal powers. The Belledame waterworks which are the oldest in Hamburg were constructed in 1531 which corresponds to the eleventh year of Tenbun according to the Japanese chronology, just one year before the Portuguese knocked at

Japan's door. The city of Sakae whose prosperity has now shifted to Osaka, then existed strictly as a free city, being several times more prosperous than at present. At that time most of the daimyo exercised the feudal system and governed the people by strength. Although at one time taxed by these powerful lords, Sakae itself as a free city enjoyed self-government. The city was surrounded by a moat, being provided with its own soldiers who were placed under the command of the merchants themselves to resist outside invasion. When General Nobunaga, armed with tremendous power, made himself generalissimo, he proposed to levy heavy taxes upon the city. But its self-governing citizens not accepting Nobunaga as the legitimate generalissimo, or shogun, repudiated the order for taxation, and made an attempt to resist Nobunaga's forces. The military strength of the general was so great that the city was ultimately compelled to pay taxes, but for the time being it made such a stubborn resistance that Nobunaga was obliged for a while to abandon his scheme of taxation. Amagasaki which lies between Kobé and Osaka was a free city which rejected the authority of the feudal lords, and the elders governed the city. We could cite a number of such instances.

European history shows us that when the large cities of Europe assumed self-government, the market originally occupied a position like that of the kernel in fruit. In order to protect this market, the right of self-government was bestowed upon it, and for the purpose of ensuring the safety and development of the market, it became necessary to extend the same right beyond the market limits, whence it spread out in all directions until the entire city became self-governing.

The development of our market has been similar to that of European cities. Feudal lords as large landowners found it insufficient merely to collect rice from their lands and sell it in order to support their troops. They found it expedient to protect and develop the city with a view to increasing their revenue, and they naturally gave it the right of self-government. Finding that the granting of such right alone was not sufficient, they decreed that merchants in debt should be left unmolested by creditors while they were doing business in the market. Originally the object of these lords was to bring about the prosperity of the city by extending necessary protection, and to make it grow by allowing self-government, and thus to facilitate the collection of taxes. Later on, however, a law was made to exempt the market from taxation, and thus the growth of the market was encouraged. This policy doubt-

less arose from the consideration that the increased prosperity of the neighbouring districts would be more advantageous than the collection of heavy taxes. It was in this wise that the market grew to be a city, which in its turn became a large city enjoying self-government. In these respects, the growth of these cities does not differ from the development of large cities in Europe: just as earthquakes and volcanic eruptions cause variations in the strata of the earth, the historic strata of our country, according to the conditions of the time, show some variations from those of Europe—ours being sometimes a century ahead and sometimes a century behind—but all the Japanese historic strata are the same as those of Europe.

EXPANSION BEYOND THE SEAS

Of European nations the Spaniards and Portuguese expanded overseas, being actuated by the desire to seek wealth abroad. From 1400 to 1600, maritime expeditions formed the thickest stratum in Europe, and this stratum extended to Japan. During this period, the Japanese despatched privateers to Manchuria, Korea, Shantung, Kiang-Su, Chekiang, Canton, Macao, Siam, Annam, Borneo, and the Malay Peninsula, where thousands of adventurers sought power and advantages beyond the seas. Hideyoshi's project of invading Korea, fighting with China, and attacking the Philippines was conceived because among the people there arose a keen desire to expand beyond the seas. Our hero who breathed this atmosphere entered into a gigantic expedition. In fact, Hideyoshi was none other than the personification of the spirit of the people. When we take into consideration the fact that this about synchronises with the rise of the Spanish, the Portuguese, the English, and the Dutch East Indian Companies, it will become plain that the historic strata both East and West are practically the same.

In spite of this, Japan fell behind Europe in commercialism, industrialism, democracy, constitutional development, and scientific investigation—things which have been the creators of modern Europe. This backwardness is nothing more nor less than the result of the policy adopted by the Tokugawas, who cut off the East from the West by shutting the door of Japan for three hundred years, a policy calculated to preserve the safety and inglorious ease of the Tokugawa family. It was some sixty years ago that Japan opened the flood gate to intercourse with Europe which resulted in the creation of New Japan.

The goal after which mankind strives is one and the same. As all roads lead to Rome, so the road of all mankind is, generally speak-



ELDER STATESMEN

(Left) Marquis MASAYOSHI MATSUKATA — (Upper Portrait) Marquis KIMMOCHI SAIONJI — (Lower Portrait) Marquis SHIGENOBU OKUMA, Director General of Waseda University — (Right) Field-Marshal Prince ARITOMO YAMAGATA, President of the Privy Council

ing, the same. "What will become of Japan in the future?" is not a distinct and separate question. It is the same question as "What will become of European countries in the future?" There may be differences of shade but not of colour.

THE JAPAN-CHINA WAR

FANATICS and bigots are found in Japan just as in any other country. There are some thinkers who believe and contend that Japan is the foremost country of the world; that her customs and manners are the finest

in the world, and that Japan could unify the countries of the Orient. Europeans who have heard such fanatical arguments, seeing Japan's wars with China and Russia, jump to the conclusion that Japan is a bellicose nation because they couple these arguments with what they have actually witnessed. But Japan did not challenge China to fight. The neutrality of Korea was essential to the existence of Japan. Therefore if China recognised the independence of Korea, regarding her as belonging neither to Japan nor to China, Japan never meant to fight against

China. However, China in those days treated Japan with contempt, and tried to annex Korea at one stroke.

In 1894, the Chinese Minister to Japan despatched a most laughable report to the Chinese Government concerning the home administration of Japan. China in those days sent many Chinese scholars to Tokyo who formed literary friendships over the wine cup with Japanese students of the Chinese classics. Japanese (scholars of Chinese classics) Sinologues in general were haters of European civilisation, and naturally

criticised the government policy of following European ways and ideas. Some of these malcontents thought a great deal of the reign of the departed Tokugawas. The Chinese scholars at once came to the conclusion that Japan was filled with the atmosphere of reactionary revolution. The fact of this whole trouble in a nutshell is this: Prince Ito, the then Prime Minister, for all his desire to adopt European political forms, could not see his way to give consent to more democratic reforms as advocated by a certain political party among the people, and this brought about a discussion in Parliament. Chinese politicians observed the fact that in Japan there existed on the one hand those who opposed European civilisation and that a struggle was going on between political parties and the Government and they formed an idea that Japan was already being divided into two factions, so that even if China

annexed Korea, taking advantage of the situation, Japan would have no courage to fight. Actuated by these convictions, China suddenly sent troops to Korea with a view to annexing it. Should Korea become a possession of China and Ma-Shan-P'u and Fu-Shan-P'u be well fortified, Japan's safety would be jeopardised. Japan was forced to resort to warlike measures, and the result was the Japan-China War. Japan had not the least aggressive intention.

THE JAPAN-RUSSIAN WAR

IN the twenty-eighth year of Meiji, the Russian minister locked up the King of Korea in the Russian Legation, which became in fact the Korean Government, all orders emanating from this quarter. Count Mutsu was then the Minister for Foreign Affairs and Prince Ito was Prime Minister. The wounds Japan had received in the war against

China were not then completely healed, and it was next to impossible to cope with Russia. Japan approached England complaining of the outrageous attitude of Russia in Korea, and asked England if she were prepared to take any steps. Lord Salisbury, the Premier of England, instructed the British Foreign Minister to inform our government to the effect that England could not stand aside and watch the forcible absorption of Korea by Russia. These words sounded strong enough, but when carefully analysed, the expression that England could not stand aside and watch the forcible absorption of Korea by Russia is merely a form of words intended to maintain the prestige of a great nation. It implied that should Korea of her own accord become a dependency of Russia nothing could be done. The Japanese Government was simply powerless, and several years had to be passed in complaisance and indecision.



LEADING POLITICIANS

(From Left to Right) Mr. IKUZO OOKA, President of the House of Representatives since 1911—Prince IYESATO TOKUGAWA, Head of the Tokugawa Family and Descendant of the Last Famous Shogun—Mr. TAKESHI INUKAI, M. P., Leader of the Kokuminto, or National Party, in the House of Representatives—Viscount TAKAAKI KATO, Formerly Japanese Ambassador to London, now a Prominent Political Leader—Baron K. TAKAHASHI, Member of the House of Peers, and One of the Most Powerful Leaders of the Seiyukwai Party—Mr. TAKASHI HARA, Present Prime Minister; Leader of the Seiyukwai Party in the House of Representatives.

But Russian avarice and outrages knew no bounds. After occupying Manchuria, she was prepared to swallow up Korea. Japan was compelled to open negotiations with Russia. But even at that time Japan had still no intention of fighting against her. Japan would have consented to Russian occupation of Manchuria had Russia allowed Japan to hold Korea, making the Yalu River the boundary line, but Russian diplomats who had resided many years in Tokyo had reason to believe that Japan would be satisfied if Korea could be divided, with the Tai-Tung-Kiang as the boundary line, and if matters could be delayed Japan would surely give her consent to the latter arrangement. The situation in both countries became so pressing that Japan had to wage war against Russia. In the midst of the Japan-Russian War, the Katsura cabinet published for the benefit of the Imperial Diet all the documents and correspondence that had passed between Japan and Russia. These documents were partly true and partly false. They were false in that they did not contain that part of the documents concerning the demand made by Japan to the effect that Japan would be satisfied if Russia took Manchuria, with the Yalu River as the boundary, leaving Korea to Japan's control. Thus it will be seen that Japan had very little notion of invasion and aggression in fighting against Russia. In order to maintain the safety of the country, it was necessary for Japan to bring about either the occupation of Korea or the preservation of Korean independence. Japan even went so far as to give her consent to Russia's control of Manchuria, but Russia would not listen to either of these propositions, and Japan was obliged to fight. The most powerful reason for Europeans' estimate of Japan as a bellicose nation is found in connection with Japan's wars against China and Russia, but the real causes of these wars are exactly as I have stated here. In these wars, Japan's attitude was one of passivity and not aggressiveness.

LESSONS OF HISTORY

SUCH being the past history of Japan, her future may easily be known. In the minds of most people, the future of Japan is at once associated with the future of China. Japan has not the least ambition in the direction of the territorial disintegration of China. The partition of China is only possible as far as Japan is concerned when China destroys herself, leaving none to be the heir to her inheritance. To take the initiative in these affairs is certainly not the national policy of Japan. This view of mind is shared by all the sagacious statesmen of Japan. To be sure, there are some fanatical thinkers who

clamour for the division of China. These men are small in number, but extremely boisterous, and therefore Europeans misunderstand Japan's policy. This, I say, is absolutely not in accordance with the national policy of Japan. This is a problem about which Europeans are particularly sensitive, and any number of mere words, it is to be feared, will not mitigate their feelings. A few facts, however, will suffice by way of explanation. In order to maintain her existence, it is necessary for Japan that China should keep up her prestige, being neither destroyed nor divided, but developing adequately so as to preserve the power and honour of an independent nation. I do not deceive myself in making this statement, but rather, it is the expression of a selfish love for my own country. Why is this? Japan needs rice in order to live. In 1915 Japan's output of rice was 55,920,000 *koku*,* while the population in Japan proper numbered 53,350,000. Even with this enormous amount of rice, the nation could not be properly fed. Let us see how it is. The amount of rice required by the Japanese for a year is 1 *koku* 8 to per head. Now the amount of rice consumed by the population of 53,350,000 is 96,000,000 *koku*, but, as I said before, Japan's output of rice is only 55,920,000 *koku*. This fact gives rise to the necessity of importing food from foreign countries. Foodstuffs thus imported from abroad in 1912 amounted in value to 48,470,000 yen of rice, 12,350,000 yen of wheat, 7,130,000 yen of beans, 1,780,000 yen of wheat flour, and 2,410,000 yen of vegetables, making a total of 72,140,000 yen. In addition to these, Japan imports from Korea 40,000,000 yen of agricultural products and 40,000,000 yen of the same from Formosa. The principal place where these imported foodstuffs are produced is China, Annam, and Tonking. It is quite natural for us to wish that China, the supplier of such an enormous amount of foodstuffs to Japan, should enjoy peace so that her agricultural products may be increased and thus the price of rice be naturally lowered to the great benefit of our countrymen.

We need iron. Japan is very poorly supplied with iron. No iron is available in this country excepting the materials for pans, kettles, knives, and kitchen utensils. In 1914, our output of iron ores was 4,550,000 *kanme* of manganese iron, 30,820,000 *kanme* of sulphuric iron, 564,000 *kanme* of chrome iron, and 24,000,000 *kanme* of iron. It is true that more than one-half of the iron mines are idle, but even if all these were put into operation, the output could not be doubled. The demand for iron in this country is something enormous. Large, active

*1 *koku* = 4.9629 Imperial or 5.1 American bushels.

factories in Kyushu alone require more than one million tons of iron per year. We are therefore importers of a large amount of iron at present. We import from Europe, America, and China 1,810,000 yen of pig-iron, 7,940,000 yen of iron, 5,600,000 yen of iron rods, 77,790,000 of sheet iron, 1,220,000 yen of electro-plated sheet iron, 4,790,000 yen of leaf iron, 380,000 yen of iron wires, 1,170,000 yen of electro-plated iron wires, and 1,340,000 yen of iron tubes and pipes, making a total of 102,040,000 yen. The iron thus obtained is used for the purpose of building electric rails; it builds railroads throughout this country, and it builds machinery. This is the amount of iron for normal times. Should war break out, there will arise a greater demand both for iron and rice.

When the Russo-Japanese War began, shells for our guns were provided at the rate of two shots and a half per gun, per day. These preparations were made after strict consideration of the history of war in Europe, and were thought to be more than sufficient. When the actual battle was fought in Nanshan against Russia, Japan found to her great surprise that she had to fire fifty shots a day. The provision for our shells was at once exhausted. Japan was then obliged to put into operation small iron works throughout the country. The result was that Japan fired some one million shells in the war against Russia which lasted one year and a half. This was, indeed, a wonder in the history of warfare. But what is the state of affairs in the present European war? It is no uncommon event for some seven or eight hundred thousand shots to be fired in a day. We can easily surmise the nature of future warfare. The lack of iron is keenly felt even in ordinary times, nay, when America put a ban on the export of steel to Japan, the latter was left in a state of complete dismay. We are pressed with the need of iron not only in normal times, but in time of war the lack of iron must be severely felt. Should our neighbour China entertain kindly feelings toward us, and we, on our part, help her, thus bringing the two nations nearer in economic relations, and mutual friendly intercourse; should China become a friendly nation able to supply us with iron even in war, then our joy and happiness would be infinite.

Suppose that some day Japan were unfortunately placed in a position of having to fight against a foreign enemy. She would put in the field some one million and a half soldiers, all of them able-bodied men between twenty and forty years of age. Should these able-bodied men be collected from farms, and sent to a foreign country, the production of rice must be greatly reduced. On these occasions, should China's agricul-

tural condition prove itself healthy and prosperous, and if this should be combined with safety of communications and friendly sentiment on the part of China to supply us with rice even during the war, and should China be a strong country, then Japan would indeed be blessed. The advantages to be derived by Japan from preserving the integrity of China, intact,—not causing her to be dismembered or destroyed, but keeping her as a safe and friendly nation, and encouraging her growth,—are plain enough from these figures. It is needless for me to employ clever language and sophistry to prove the fact that Japan has no ambition against China. The bare statistics will amply prove this fact. Thus it will be seen that to Japan the independence of China is indispensable. If so, we must study the way to maintain her independence. In the matter of national independence, Japan is ahead of China, and she is prepared to give her advice, warning, and assistance so as to enable her to be independent. The assertion of the Oriental Monroe Doctrine made by our special envoy, Viscount Ishii, in America, was favourably received by the public in America and England. I believe that this fact shows that they fully appreciate the real sentiments of Japan.

I have already made it plain that the strata of Japanese history in the past are the same as those of European history. I have also made it evident in connection with Japan's wars against China and Russia, that Japan is not a bellicose nation, and that she has no sinister designs on the future of China. In this, Japan is simply considering herself: it is not that she is moved by any love of China. These facts are demonstrated not only by the history of our country. That it is not to the advantage of Japan to conceive ambitious designs against continental countries, is also proved by the history of Europe. The history of any country shows that the peninsula is very weak, because on the one hand it is in contact with the continent so that it must maintain an army, while on the other hand it must devote its strength to coast defence, since it faces the sea. That is to say, its productive capacity is squandered on national defence. History proves that it is fatal to the interests of the peninsular or island empire to entertain any ambitious designs against the continent. England once held territory in what is now Normandy, but for years and years, war dragged on there, causing thereby the decline and weakness of England. When, however, England withdrew herself from Normandy and became purely an island empire, her greatness then began. Again, the history of mankind proves that it is fatal for the South to march against the North. The history of the twenty-four

dynasties of China shows that invariably the people of the dark lands and gloomy skies of the north invaded the sunny south, where grapes ripen and the apricot blossoms. There are a few exceptional instances of the Southern people driving back the Northerners, but they are merely instances of lost ground being regained by remustered forces. We find the same in the history of Europe. It is simply the history of the oppression of

the influence of heredity and environment. The blood that we inherited tells us that we are a maritime people; the history we read teaches us that we are a nation of the sea. It also teaches us that our destiny is to advance South. The future of Japan lies not on the continent, but on the sea; not in the North, but in the South. The period of our forefathers' greatest activity was when they sought gain in the China Sea and the Indian



THE HOME OFFICE

the South by the North. Any ambition entertained by Japan, an island empire, against the continent, would be in defiance of the primary lesson of history. Japan has already assumed responsibility in Manchuria, and in order to shoulder this responsibility, she has had to maintain an enormous army.

The comparatively slow progress that Japan has unfortunately made in productive industry within the last few years must be attributed to this military preparation, but her need for maintaining a navy has not in the least been lessened thereby. Thus, Japan is now obliged to keep both a strong navy and a strong army. Now, Japan keenly feels the actual lesson taught by history. No one but a madman could conceive the idea that Japan would assume the further responsibility of stationing troops in a dismembered China.

What will be the future of Japan? The questions, What will be the future of Japan? and How shall we shape her future? resolve themselves into one. However hard we may struggle, it is impossible for us to get rid of

Ocean. Many a thrilling tale of romance and bravery which fires the blood of our youth was handed down to us by our forefathers whose activities were on the sea.

At present, among our countrymen, there is an outburst of enthusiasm for the South. The conviction has arisen among us that those who control the tropics will rule over half the world. Our trade has begun to advance towards the South. The goal of our travellers has become the South; we find this aspiration toward the South revealed in the textile fabrics exhibited in the Mitsukoshi Department Store; we find it revealed in the pictures exhibited in our art exhibitions; we discover it in the fancy goods shown in the windows of our bazaars; it appears in the carvings which decorate the drawing rooms of the rich. Our future lies on the Sea; our hope is in the South. How shall we work in the South and on the Sea? Our ambition is to digest and harmonise the civilisations of both East and West, and convert them into a civilisation shedding a new light which shall be the glory of Asia and a beacon-light guiding us to the South and to the Sea.



THE BANK OF JAPAN

IX. BANKING, FINANCE, AND INSURANCE

(YOKOHAMA AND TOKYO SECTION*)

ECONOMICS OF OLD JAPAN—FINANCIAL POLICY OF THE TOKUGAWA SHOGUNS—EARLY MEIJI FINANCE—THE FIRST BANKS—IMPROVEMENT OF MONETARY ORGANS—CURRENCY REFORM—TAXATION AND REVENUE—THE NATIONAL DEBT—BANKS AND BANKING—FOREIGN BANKS—LOAN ASSOCIATIONS—NATIONAL WEALTH OF JAPAN—EXCHANGES—FOREIGN BANKS—INSURANCE COMPANIES—A SHORT HISTORY OF COINAGE IN JAPAN

HOW revenue and expenditure were adjusted in ancient Japan we have now no means of knowing. It is clear, however, that coins were early used as media of exchange, the custom probably coming from China, though exchange was chiefly in the form of barter. But there were no devices for accumulating precious metal or combining capital for enterprise, except the treasuries of the feudal lords in later times, each clan having a separate system of finance. Taxes were collected in kind, the gatherers being individuals or families that had displayed some talent for finance. And there is reason to believe that the tax-gatherer of ancient Japan was no less stern and unscrupulous than his proverbial contemporary in Europe. As a system of finance developed the taxes collected in kind were converted into money and paid to the feudatories or to the Central Government, as the case might be. These financial families, some of whom were great rice merchants, often made loans to officials, did some exchange business, and occasionally

extended accommodation to private individuals.

ECONOMICS OF OLD JAPAN

BEFORE the opening of Japan to Western civilisation there were no banks in any Occidental sense of the term; for the financial concerns already mentioned neither collected funds by receiving deposits nor distributed capital in loans to the public. The various fiefs were so isolated from one another that neither social nor financial intercourse was possible. In any case all who engaged in mercantile or manufacturing pursuits were despised as "money-grubbers" by the upper classes. And this condition continued until the first Europeans visited the country in the middle of the sixteenth century. The foreigners found gold plentiful in some places, and the coinage more than eighty per cent pure; but the Japanese did not appear to realise the full value of their coinage and allowed it to be exported by the Portuguese and Spanish and later by the Dutch in ever-increasing quantities. Gradu-

ally, however, the Japanese became conscious of their mistake; for Hideyoshi learned from the visitors that the financial policy of Spain and other European countries was to hoard gold, and he made up his mind to do likewise. But the supply became depleted and he was obliged to take over the gold mines of Sado to replenish his treasury. At the time of his death enormous quantities of gold were found stored in Osaka Castle; and Iyeyasu, the first of the Tokugawa shoguns, was obliged to weaken the wealth and consequent power of Hideyori, the son of Hideyoshi, by imposing upon him highly expensive undertakings.

FINANCIAL POLICY OF THE TOKUGAWA SHOGUNS

THE financial policy of the *bakufu*, like that of its successors in modern Japan, was one of temporisation. The underlying financial policy of all Japanese governments has been that inaugurated by Hideyoshi and carried into effect by the Tokugawa authorities; namely, to increase at all costs the specie

*See Page 517.

holdings of the nation. Modern governments have tried to do this by discouraging imports and encouraging exports, as well as by raising foreign loans to cover deficits. To the Tokugawa Government, isolated as it was, foreign loans were impossible; and consequently the frequently recurring deficits had to be made up by resorting to habitual debasement of the national coinage, causing an abnormal increase of currency, a corre-

crucial financial situations, until at last the currency was so inflated and imports so increased that the Finance Minister, Arai Hakuseki, had to limit commercial imports to the value of the copper held by the nation, in order to prevent outflow of specie. Such was the financial situation in Japan at the beginning of the eighteenth century. By the efforts of Arai the coinage was finally restored to the purity and value of the

EARLY MEIJI FINANCE

THE story of Japan's financial rehabilitation in the Meiji era is one of the most sensational in the history of national economy. It is chiefly a tale of remarkable individualities dealing with striking incidents and vicissitudes in economic situations. Everywhere on its pages stand out conspicuously the names of Ito, Inouye, Matsukata, Okuma, and Shibusawa, the fathers of modern Japa-



(LEFT TO RIGHT) VISCOUNT Y. MISHIMA, GOVERNOR OF THE NIPPON GINKO (BANK OF JAPAN)—MR. J. INOUE, PRESIDENT OF THE YOKOHAMA SPECIE BANK—MARQUIS MASAYOSHI MATSUKATA, KNOWN AS "THE FATHER OF JAPANESE FINANCE"

sponding rise in prices, and a serious instability of national finance.

At the beginning of the Tokugawa era in 1603 the standard gold coin, the Keicho *koban*, was just over 80 per cent pure, the rest being silver, while the subsidiary silver and copper coinage were proportionately good. Thus the currency of the Keicho period enjoyed the confidence of both foreigners and Japanese alike. So much did the foreign merchants seek exportation of the national specie that the authorities had to place a limit on the sum annually taken out of the country. Even this could not maintain the necessary supply for the shogun's treasury, and reminting had to be done again and again, the new coinage being only 56.4 per cent pure gold, and the subsidiary coinage only 63 per cent pure silver. To ensure a sufficient amount of metal for reminting, the *bakufu* ordered all taxes to be paid in gold. As has been suggested, methods of debasement were resorted to repeatedly to tide over

Keicho era; but by the middle of the eighteenth century an abnormal depreciation in prices and a consequent fall in rice, which created dangerous speculation, obliged a reversion to the policy of debased coinage to restore equilibrium. Various new and onerous taxes were also now imposed, and rice merchants became bankers to the impoverished feudal lords. To meet the expenses of preparing defences against intruding foreign nations, the coinage was once more reminted at the beginning of the nineteenth century; and revenue was further increased by finding wealthy husbands among the feudal lords for daughters of the shogun, as well as by selling permission to wear the shogun's crest and other marks of privilege or rank. Thus by a remarkable system of temporisation the *bakufu* was enabled to meet its financial obligations and put off the evil day, until its downfall in 1868, when an empty treasury was the only inheritance of the new régime.

nese finance. When the financial affairs of the nation fell into the hands of these men, after the abolition of the shogunate, the country was not only without money, but had no means of obtaining any, as the fiefs and their taxes were still in the hands of the feudal barons; and in the absence of anything like organised commerce or finance no access to funds presented itself. Samurai as these men were, and without any training in finance, it is remarkable indeed how they were able successfully to extricate their country from its impossible situation with comparative rapidity, reforming the hopelessly chaotic monetary system and placing it on a sound basis. The shogunate, in its slough of financial embarrassment, had, as we have said, reminted and debased the coinage until coins were of little more value than tokens, while the country was flooded with the surreptitious paper money issued by feudal lords; and as these numbered 270 the confusion caused by their issues of script of 1,600



TOKYO CHAMBER OF COMMERCE

different types may be imagined. The story of the evolution of Japanese currency from this tangled situation is one of the most extraordinary in the history of national

economic progress. After some easy natural mistakes arising from inexperience, the work of regeneration was commenced in 1871 when gold was adopted as the national currency;

in 1878 it became a system of gold and silver bimetallism; in 1879 it was equal only to a system of inconvertible paper money; in 1886 the paper had been redeemed by silver coins, and at the end of 1897 a gold standard was adopted to replace the silver system.

To avoid the bankruptcy threatened by the expenses of the wars and rebellions of the Restoration period, the new Imperial Government was obliged to issue as an emergency measure in 1868 a large amount of paper money, at first convertible into specie, but in 1871 declared inconvertible. This action failed to command public confidence, and in 1873 the Government was forced to make this paper exchangeable for gold notes (*kinsatsu*), or inconvertible exchange bonds bearing six per cent interest, with the hope of destroying the paper money thus brought in and promoting the establishment of banks which should issue convertible notes on security of these government bonds.

THE FIRST BANKS

ALTHOUGH special organs, such as exchange companies, had been appointed to take charge of national revenue, encourage industry, and promote trade by lending money at low rates, no such organs as banks yet existed



TOKYO STOCK EXCHANGE. (THE BUILDING WAS RECENTLY PARTIALLY DESTROYED BY FIRE)



PROMINENT TOKYO BANKERS

(Upper Row, Left to Right) Mr. KENZO IKEDA, President, One Hundredth Bank, Ltd.—Mr. R. MIZUKOSHI, President, Hokkaido Colonization Bank, Ltd.—Baron I. MORIMURA, Senior Partner, Morimura Bank, Unltd. (Middle Row) Mr. G. SHIMURA, President, The Hypothec Bank of Japan—Dr. Y. ONO, Vice-President, The Industrial Bank of Japan—Mr. T. SHIDACHI, President, The Industrial Bank of Japan—Mr. Y. SASAKI, President, Dai-Ichi Ginko—Mr. K. KOIKE, President, Koike Ginko (Lower Row) Mr. Z. YASUDA, President, Imperial Hemp Weaving Co., the Dai-San Ginko, the Yasuda Ginko, and Other Banks and Industrial Enterprises—Mr. SHIGETAKE SAITO, President, Tokyo Prefectural Bank, Ltd.—Mr. K. MORI, Managing Director, Yokohama Seventy-fourth Bank, Ltd.

in Japan. First there was a Business Bureau, then a Trade Bureau, and afterward these Commercial Companies and finally Exchange Companies in the principal cities, their personnel consisting chiefly of great families like the Mitsui, the Shimada, and the Ono, of ancient repute in the world of Japanese finance. These companies were partnerships of a strictly joint-stock kind, but they could receive deposits or lend money to merchants and manufacturers as well as issue notes, and therefore they constituted the nucleus of banks. Neither the notes of these concerns nor of the Government were secured by any fixed specie holdings, and consequently they had soon to give way to the establishment of regular banks after a modern system. An American model was adopted on advice of Ito, afterward Prince Ito, who had been

sent to the United States to study banking institutions and returned to submit to the Government the results of his investigations. He made three cardinal proposals: The adoption of the gold standard, the granting of interest-bearing bonds for the treasury notes in circulation, and the establishment of banks as the media for issuing paper money. These proposals were adopted in 1873, and soon national banks were established on a system that combined some of the features of English banking with the general bases of American practice. Each bank had to pay into the treasury sixty per cent of its capital in government notes, and was credited in turn with interest-bearing bonds to be retained in the treasury as security for the issue of bank notes to an equal amount, the banks being required to keep in gold the

remaining forty per cent of their capital as a fund for converting the notes, which conversion must always be effected on application. To prevent the rise of mushroom financial institutions the capital of each bank had to bear a fixed ratio to the population of the place where it was established. The Government's desire to replace the paper money it had issued by convertible notes was not realised, however; and with an increasing unfavourable balance of trade, gold flowed out of the country until a sharp depreciation ensued in government paper, giving rise to the financial panic of 1874. Various circumstances had combined to deepen the sense of insecurity. It will be remembered that for years the Dutch had been depleting the country of its gold, and the process continued until the opening of Japan to foreign trade.

During the centuries of seclusion gold had come to bear to silver in Japanese coinage a ratio of 1 to 8; so that the yellow metal cost, in terms of the white, only one-half of what it cost in the West. Moreover, the new treaties had given foreigners the right to exchange their own silver coins against Japanese coins, weight for weight, so that a foreigner going to Japan with a quantity of Mexican dollars could buy with them twice as much gold as they had cost in Mexico. Thus Japan lost heavily; and between 1872 and 1874 the balance of trade swayed heavily in the wrong direction, creating consternation in financial circles, and the bank notes were speedily returned for conversion. No deposits came to the aid of the banks and the circulation of money almost ceased.

The Imperial Government was, therefore, obliged to issue a revised code of banking regulations which dispensed altogether with hard money and substituted treasury notes in its place. Each bank was required to invest 80 per cent of its capital in 6 per cent state bonds; and these being lodged with the treasury, the bank became competent to issue an equal quantity of its own notes, forming, with the remainder of its capital, a reserve of treasury notes for purposes of

redemption. It was a complete subversion of the Government's original scheme; but there was nothing else to be done, and it worked well at a time when the Government had to commute the hereditary pensions of the feudatories by issuing bonds aggregating 174,000,000 yen, which, if placed all at once on the market, would suffer depreciation; while the holders, unaccustomed to business, might easily be led to dispose of their securities and invest the proceeds in hazardous ventures. Therefore the new regulations offered an excellent opportunity for these bond-holders to combine and form banks, continuing to draw from the treasury 6 per cent on their bonds, while at the same time acquiring competence to issue a corresponding amount of notes which could be lent out at profitable rates. The scheme was a success. The number of banking institutions soon grew to 153; the aggregate capital of the banks in three years increased from 2,000,000 yen to 40,000,000 yen, and their note issue from 1,000,000 yen to 34,000,000 yen. It was a great and rapidly growing system based wholly on state credit, without special reference to specie. The rage for establishing banks finally became a mania; and the Government had to put a limit on the

number of banks and the aggregate of their note issues, which was placed at 34,000,000 yen.

IMPROVEMENT OF MONETARY ORGANS

It has already been shown that owing to the social and political disaffection of the first few years of the Meiji era, which cost many millions to suppress, and also the difficulty of quickly reforming the complicated taxation systems of the 270 daimyo, the expenses of the Imperial Government increased so enormously that further note issues were necessary; so that in 1878 the paper currency rose from 120,000,000 yen to 164,000,000, with a corresponding rise in prices and depreciation in the value of paper. By practising the utmost economy the Government managed to produce a surplus which was added to the fund for redeeming the paper money and to swell the specie reserve, the latter being especially imperative in face of the demand for resumption of specie payments. It was clear, however, even to the most inexperienced economist, that to amass notes for the redemption of notes could never prove a successful expedient. Consequently the great financiers of the day, Ito, Inouye,



DEPARTMENT OF FINANCE

and Matsukata, hit upon the plan of accumulating metal by buying up exporters' bills with notes and receiving the proceeds in specie; which, together with the imposition of new taxes and the increase of old ones, helped over the crisis. The outcome of this official incursion into export trade brokerage was the establishment of the Yokohama Specie Bank, which from a struggling organ of exporter's finance, has grown to be one of the greatest financial institutions of the nation. Further, in its efforts to accumulate specie and resume payments in gold, the Government organised a central bank, the Bank of Japan, in 1882, with a capital of 4,000,000 yen, while the numerous national banks were dissolved and turned into joint-stock concerns for the redemption of their notes in circulation. Each of these banks was required to deposit with the treasury the government paper kept in its strong-room as security for its own notes, and from its annual profits to hand to the treasury a sum equal to two and one-half per cent of its notes in circulation. With these funds the state bank was to purchase state bonds, devoting the interest accrued from them to redeeming the notes of the national banks. The result was a rise in the price of bonds, which were soon in demand at a premium; and since the Government began converting its six per cent bonds to fives, they no longer produced sufficient interest to redeem the notes of the national banks, in accordance with the scheme agreed upon, causing a tremendous outcry from these banks against the Government. The dispute lasted until 1896 when a bill was passed providing for the dissolution of the national banks at the end of their charter terms and their conversion into joint-stock companies without note-issuing competence. Out of a total of 153 banks only 132 continued under the new regulations, the rest being absorbed or liquidated, the notes being legal tender until 1899. In 1890 and 1893 minute regulations were issued for bringing all banks, except certain special ones, within one system of official accounting and auditing; while savings banks had to lodge security with the treasury for the protection of their depositors.

CURRENCY REFORM

ACCORDING to the monometallic system prevailing at the beginning of the Meiji era the one-yen gold piece was the unit. To facilitate foreign trade one-yen silver pieces were issued for circulation in treaty ports, equal in weight and fineness to the Mexican dollar, then the universal medium of exchange in the Far East. The relative value of the gold and silver yen pieces was fixed at the rate of 16.174 silver to 1 of gold. In



INTERIOR OF HALL OF THE TOKYO RICE AND PRODUCE EXCHANGE CO., LTD.
(TOKYO BEIKOKU TORIHIKISHO)

1873, when Germany adopted the gold standard and began to dump her silver, the price of the white metal fell, in 1876 reaching as low as 20 of silver to 1 of gold, and the value of Japan's gold coins was seriously affected. To encourage circulation of silver, the use of the silver yen was extended to silver-standard countries and became legal tender side by side with gold, thereby creating a gold and silver bimetallic system. The Government's scheme for preventing the outflow of specie, meanwhile, had been more or less successful, and sufficient was accumulating to resume specie payments. In 1885 the Government announced that from the beginning of the following year it would be in a position to exchange silver for notes, thus placing silver on a par with gold and changing from a bimetallic standard to a silver standard. The result was an immense amount of dangerous speculation in the financial and com-

mercial world, and the Government began to see the need of establishing a gold standard. The opportunity came after the war with China when Marquis Matsukata, then Minister of Finance, asked that the indemnity, amounting to 360,000,000 yen, be paid in British money, thereby making a big addition to Japan's specie. Thus in 1896 Japan was ready for the adoption of the gold standard, and 76,000,000 in coin was immediately minted, the 1-yen silver coins being discontinued, and ceasing to be legal tender after 1908. The 75,000,000 in silver yen collected was disposed of partly by recoinage into subsidiary money; but 41,000,000 yen were sold to Shanghai, Hongkong, and elsewhere, while 6,750,000 was placed in circulation in Formosa, Korea, and other colonies. The new gold standard made the unit of coinage .75 gramme of pure gold, the standard for subsidiary coins being as follows:

| DENOMINATION | FINENESS | WEIGHT | APPROXIMATE VALUE IN BRITISH MONEY |
|---------------|-----------------------------------|----------------|--|
| Gold 5 yen | 900 gold, 100 copper | 4.1666 grammes | £0:10s:6d |
| " 10 " | " " | 8.3333 " | 1: 0: 6 |
| " 20 " | " " | 16.6665 " | 2: 0: 11.5 |
| Silver 10 sen | 720 silver, 280 copper | 2.25 " | 0: 0: 2.5 |
| " 20 " | 800 " 200 " | 4.05 " | 0: 0: 5 |
| " 50 " | " " | 10.125 " | 0: 1: 0.25 |
| Nickel 5 " | 250 nickel, 750 copper | 4.66 " | 0: 0: 1.25 |
| Bronze 1 " | 950 copper, 40 tin and 10 zinc | 3.56 " | 0: 0: 0.1/8 |
| " 5 rin | | | |

The total amount of coins and bank notes in circulation at the end of 1915 was as follows:

| | |
|-------------------------|--------------------|
| Gold..... | Yen 37,112,103 |
| Silver..... | 114,232,513 |
| Nickel..... | 9,084,710 |
| Bronze..... | 9,011,398 |
| <i>Total.....</i> | <i>169,440,724</i> |
| Bank notes..... | 439,138,010 |
| <i>Grand total.....</i> | <i>599,578,734</i> |

According to a statement issued by the Department of Finance, the total volume of money in circulation at the end of November, 1917, was 956,859,998 yen, including coin and notes. These figures are further evidence of the striking improvement in the economic situation in the past two years.

TAXATION AND REVENUE

NATURALLY the confusion that had so long existed in the national banking system and in the circulating medium reacted unfavourably on finance generally, interfering with the collection of revenue. Under the feudal system the 270 daimyo had some 2,000 different kinds of taxes which the new Meiji Government had to straighten out and place on a modern basis. The principal revenues of the feudal barons had been land tax paid in rice, while the shogunate had a small revenue from the nation's trifling foreign trade with China and Holland, besides that from monopolies and imposts and from private estates. The aim of the new *régime* was a uniform system of taxation covering the whole Empire, reducing the burdensome land tax and making up the deficiency by indirect taxation, so as to encourage agriculture. By 1872 a complete survey of the country had been made and titles to land ownership decided, the lands being assessed on a basis of the money value of their produce for the previous five years. The new land tax was levied at the rate of three per cent on this assessment and payable in coin, while the hitherto onerous duties and imposts were abolished. As the demand for more revenue increased with the nation's naval and military expansion new taxes were levied, especially an income tax, as well as imposts on soy, tobacco, confectionery, and stamps, the results being so satisfactory that in 1886 the Government was able to reduce the land tax again. After the war with China the demand for revenue became still more pressing, and it was found necessary to establish occupation and registration taxes as well as to increase the taxes on *saké* and tobacco, those on vehicles and confectionery being at the same time abolished as they had added little to the nation's

income. By this means some 35,000,000 yen was added to the treasury. But taxation was further increased in 1896, and again in 1900, after the Boxer uprising in China which entailed an outlay in Japan of some 22,000,000 yen. Further increase was found necessary in 1906 after the war with Russia, when taxes and loans greatly increased, the latter alone amounting to over 1,700,000,000 yen. The new taxes were raised by virtue of what is called the Extraordinary Special Tax Law, and at the same time tobacco was made a government monopoly. The new taxes were an additional burden of 145,000,000 yen on the people and were considered by no means light; but the country had been so far developed that the tax-bearing capacity of the people had improved commensurately. There was considerable complaint, however, and some taxes had to be readjusted to allay disaffection. The following table will show Japan's revenue and expenditure at intervals of ten years for the last forty years:

| YEAR | REVENUE | EXPENDITURE | SURPLUS |
|-----------|-------------|-------------|-------------|
| | Yen | Yen | Yen |
| 1876..... | 69,482,677 | 69,203,242 | 279,434 |
| 1886..... | 62,156,835 | 61,115,313 | 1,041,522 |
| 1896..... | 118,432,721 | 85,317,179 | 33,115,541 |
| 1906..... | 535,256,392 | 420,741,205 | 114,515,187 |
| 1916..... | 608,269,267 | 602,610,719 | 5,658,548 |

A return of the national finances for the fiscal year ending June 30, 1917, gave the receipts as 813,293,836 yen, and the expenditure as 603,714,531 yen, leaving a handsome surplus of 209,579,305 yen. Revenue exceeded the budget estimate by 212,355,439 yen, and expenditure was less than the estimate by 12,919,178 yen. Figures issued later in the year showed that this buoyant condition of the national finances was being more than maintained, revenue increasing by substantial sums, though the figures on expenditure were not available at the time this article was written.

In any study of Japanese revenue and expenditure the question of surplus requires more consideration than space here permits, since deficits seem usually turned into surplus by means of loans and the transposition of funds, so that a table such as the above can not be taken fully at its face value.

As to sources of revenue in detail, it may be remarked that in the course of these observations it has been shown that during the war with Russia taxation reached a higher ratio than at any time before; and after the war was over taxation was practically kept at a war level, as the debts and post-bellum responsibilities demanded extra income to

prevent deficit. The burden of taxation thus became markedly more onerous and the incidence of taxes was in some cases uneven. Moreover, economic changes necessitated the abolition of some taxes and the revision of others. And so in 1910 all taxes save that on income underwent readjustment, resulting in a decrease of revenue to the extent of 15,000,000 yen; while in 1913 a further revision resulted in a deduction of taxation by 7,000,000 yen more, with special relief to persons of small incomes. As the burden was still more than land-holders could well carry a more radical revision came in 1914, relieving agriculturists of some 11,000,000 yen in taxation. The *Land Tax* was thenceforth assessed upon a basis of ten times the annual rental value of the land. On this assessment residential land pays 2.5 per cent; rice and other fields, 4.5 per cent, but 3.2 per cent in Hokkaido; and the other fields, 4 per cent. *Income Tax* is payable by persons domiciled or who have resided one year in

places where the income tax law is in force, and by those who, though not thus liable, derive income from sources within the Empire which come under the said law. There are three kinds of income tax: (1) That for joint-stock companies and other juridical persons; (2) That for interest on public bonds or company debentures; (3) That on incomes not derived as in 1 and 2. In Class 2 the rate is 2 per cent, but in other classes an additional rate of 1 per cent is paid on incomes of not less than 300 yen, the rate increasing proportionately to 22 per cent on incomes of 100,000 yen or more, in accordance with the Extraordinary Special Tax Law; and also there is the ordinary rate of 2.5 per cent for Class 1, while Class 2 ranges on a sliding scale from 1 per cent on incomes of not less than 300 yen, to 5.5 per cent on those of not less than 100,000 yen. In 1915 the statement from this source was as shown in table at top of next page.

There is no tax on incomes of army and navy officers and privates while engaged in war, while income derived from charity, pensions, or as legal support, or for school expenses or from government loan bonds, is also exempted. The *Business Tax*, which was first imposed in 1896, falls upon all

| CLASS | PERSONS | INCOME | TAX |
|--------------------|---------|-------------|------------|
| 1..... | 16,605 | 202,627,878 | 13,168,299 |
| 2..... | ..... | 20,874,384 | 410,933 |
| 3..... | 979,020 | 622,589,302 | 23,933,296 |
| <i>Total</i> | 995,625 | 846,091,564 | 37,512,528 |

descriptions of industry and commerce, assessment being based on capital, sales, commissions, contract values, rentals of buildings, and 2 yen for each employee other than labourers, the rate for the latter being 50 sen each. The rate for wholesale houses is 12/10,000 on sales, and for retail houses 36/10,000 on sales, plus 90/1,000 of the rental value of the buildings. The rate for banking and insurance companies is 5/1,000 of the capital and 90/1,000 of the rental, while for manufacturing, printing, publishing, and photography, the rate is 3.7/1,000 of the capital and 90/1,000 of the rental value. *Liquor Tax* is levied on various classes of brewers, such as saké brewers of different kinds, beer brewers, distillers of wine and alcoholic liquors and so on, the rate varying with the percentage of alcohol, from 20 yen per 40 gallons for 20 degrees of alcohol

to 1 yen for each degree per 40 gallons, in the case of saké brewers; while beer brewers pay 10 yen per 40 gallons, or about sixpence a gallon; and distillers pay 1 yen for each 1 per cent of pure alcohol per 40 gallons, though in no case less than 21 yen per 40 gallons. The *Soy Tax* is levied at the rate of 1.75 yen for each 40 gallons. Those making soy for their own use must pay a tax of from 50 sen to 4 yen per 40 gallons. The *Mining Tax* is at the rate of 30 sen for each 4 square yards of land still prospecting, and double that rate for mines in operation. The rate on output is 1 per cent on the value, gold, silver, and iron ores being exempt. There is also a tax of 30 sen on placer mining for two and one-half acres in the case of alluvial and 4,000 square yards in non-alluvial soil. A *Travel Tax* was imposed in 1905 and applies to all passengers on trains, electric cars, and

steamers, the rate being 50 sen first class, 25 sen second class, and 4 sen third class for 200 miles and upwards, 40 sen, 20 sen, and 3 sen respectively for the various classes on distances between 100 and 200 miles, while passengers travelling less than 100 miles but more than 50 miles, pay 20, 10, and 2 sen respectively according to class, and those travelling less than 50 miles pay 5 sen for first class, 3 sen for second, and 1 sen for third class. The *Succession Tax* came into force in 1905, the rate varying according to the degree of relationship and other circumstances connected with the successor to the headship of a house and the value of the heritable property, ranging from 1 to 5 per cent. A *Tax on Bourses* is levied, in respect of time bargains, upon exchanges, the rates being 5/10,000 of the amount of the transaction in the case of local loan bonds, and 12/10,000 in the case of other securities and negotiable papers, exempting national loan bonds. The *Consumption Tax* is on textiles to the amount of 10 per cent *ad valorem*, and on kerosene to the amount of 1 yen per 40 gallons. *Sugar Excise* applies to sugar, syrup, and molasses delivered at manufactories, or customs or bonded warehouses,



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the rate being from 2 yen to 10 yen per *picul*, according to quality and methods of manufacture. *Tonnage Dues* were introduced in 1899, and are imposed on all ships entering port from foreign countries, the rate being 5 sen per registered ton of the actual capacity, but the payment at a port of 15 sen per ton exempts a vessel from all further tonnage dues at that port. *Stamp Receipts* are those other than business tax and fees from stamps generally, and are over eighty in number, the most important being the stamps on patent medicines and legal documents, the registration tax, shooting license tax, civil suit stamps, examination fees, and certain custom house charges. *Government monopolies*, which are treated in a separate article in this volume, comprise tobacco, salt, and camphor, as well as opium in Formosa, the tobacco monopoly being the most important. The revenue from Imperial Government *Railways* is treated as a special account, divided into Capital, Reserve, and Revenue Accounts, the excess of revenue over expenditure in the Revenue Account constituting profit, and the balance remaining after deducting for the Reserve Account a sum not exceeding 10 per cent of the profit, is transferred to the Capital Account, the revenue of which is further constituted by any public or temporary loans which the Government may issue in the case of a deficit in railway profit; by proceeds of sale of railway property and by other receipts. Expenditure of Capital Account consists of disbursements for construction, improvements, upkeep and repair of railways, the redemption of debts and other charges. The expenditure of Reserve Account consists of disbursements to meet deficits in the revenues of the other accounts caused by accidents, natural catastrophes, and the like. The *Custom Duties* which came into force in 1859 and were revised in 1866 and 1899, with the imposition of a special super-tax on imports in 1906, specify 538 articles in 19 different groups. The tariff was further revised in 1911, enumerating 647 articles classified in 17 groups, the duties being specific as far as possible, raw materials mostly free and light duties on semi-manufactured articles. The duties on imports range from 15 to 40 per cent, the higher rates applying chiefly to articles of limited importation; while articles of luxury, also imported in small quantities, pay a duty of 50 per cent. A treaty with Great Britain provides for a reciprocal tariff on linen yarns, cotton and woollen tissues, iron, and paints. As time goes on the question of revenue becomes one of increasing importance, and every possible resource has to be called into service. The Japanese army is now three times what it was before the war with Russia,

with corresponding naval increment, to say nothing of the millions involved by participation in the European war. The national specie holdings which amounted to some 353,000,000 yen before the war, however, have, on account of the enormous favourable balance of trade, risen to nearly 900,000,000 yen in 1917, and in this sense Japan has been financially benefited by the war. The following table indicates sources of revenue for the last fifteen years, at intervals of five years for the sake of comparison:

The table on the following page gives the expenditure for the same periods.

THE NATIONAL DEBT

IN Old Japan the people were under obligation to lend money to feudal lords who usually entered into contracts without specifying any security. The rights of creditors being thus unrecognised, it was frequently the case that the lenders were forced to provide further contributions or lose what they had already loaned. When the Meiji Government assumed responsibility for the estates of the daimyo investigations were made as to debts so contracted, and the amounts due creditors were settled by public loan bonds, the people at the same time

| SOURCES: ORDINARY TAXES | 1907 | 1912 | 1917 |
|--|-------------|-------------|-------------|
| | Yen | Yen | Yen |
| Land tax..... | 84,637,498 | 74,936,085 | 72,592,350 |
| Income tax..... | 26,348,739 | 34,755,746 | 33,438,186 |
| Business tax..... | 19,770,159 | 24,598,612 | 20,090,877 |
| Succession tax..... | 1,409,125 | 4,061,596 | 2,853,302 |
| Travelling tax..... | 2,463,801 | 3,918,334 | 4,869,954 |
| Mining tax..... | 1,928,152 | 2,238,072 | 2,958,781 |
| Tax on bank note issues..... | 1,692,285 | 1,388,160 | 1,060,138 |
| Liquor tax..... | 71,100,004 | 86,032,832 | 91,719,091 |
| Soy tax..... | 5,601,458 | 4,828,316 | 4,908,432 |
| Sugar excise..... | 16,156,704 | 17,255,548 | 25,339,357 |
| Consumption tax (textiles)..... | 5,937,515 | 18,916,151 | 15,144,115 |
| “ “ (kerosene)..... | ..... | 1,925,503 | 1,457,021 |
| Bourse tax..... | 4,679,831 | 4,799,625 | 3,716,483 |
| Custom duties..... | 41,853,533 | 48,518,614 | 32,024,415 |
| Tonnage dues..... | 580,581 | 653,817 | 572,919 |
| Other taxes..... | 213,174 | 244,309 | 247,739 |
| Stamp receipts..... | 34,260,448 | 29,073,697 | 28,991,699 |
| Public undertakings, etc..... | 118,090,421 | 132,252,365 | 165,702,494 |
| Posts, telegraphs, and telephones..... | 34,904,163 | 51,963,732 | 63,775,300 |
| Forests..... | 5,468,786 | 11,047,947 | 10,659,246 |
| Government Monopolies: salt..... | 23,232,385 | 11,840,312 | 8,951,336 |
| “ “ camphor..... | 1,163,826 | 179,903 | 49,248 |
| “ “ tobacco..... | 32,574,484 | 51,315,884 | 58,802,746 |
| Railway profits..... | 16,687,452 | ..... | ..... |
| State property..... | 4,059,325 | 5,904,587 | 23,464,618 |
| Interest on transferred deposits..... | 3,268,885 | 8,799,826 | 11,926,859 |
| Transferred from Korean account..... | ..... | 1,348,065 | 5,011,606 |
| “ “ Formosan “..... | 2,039,293 | 4,918,264 | 4,071,399 |
| Other miscellaneous receipts..... | 3,770,346 | 3,095,146 | 3,095,935 |
| <i>Total</i> | 562,992,673 | 640,811,048 | 697,495,646 |
| EXTRAORDINARY REVENUE | | | |
| Sales of state property..... | 3,886,527 | 3,704,396 | 3,740,201 |
| Chinese indemnity..... | 2,200,201 | 1,073,401 | 2,633,177 |
| Issue of public loans..... | 15,508,259 | 11,200,730 | 1,550,000 |
| Forestry funds transferred..... | 1,771,830 | 2,426,633 | 2,692,113 |
| Transferred from naval funds..... | ..... | 12,000,000 | ..... |
| Riparian funds transferred..... | ..... | 10,066,190 | ..... |
| Local contributions by prefectures..... | 1,330,298 | ..... | 2,346,390 |
| Temporary loans..... | ..... | ..... | 8,000,000 |
| Surplus of preceding year transferred..... | 57,160,585 | 101,247,795 | 24,437,759 |
| Other miscellaneous receipts..... | 4,691,856 | 6,914,362 | 23,745,605 |
| <i>Total</i> | 86,549,556 | 148,633,507 | 69,145,245 |
| <i>Total revenue</i> | 649,542,229 | 789,444,555 | 766,640,891 |

| ORDINARY EXPENDITURE | 1907 | 1912 | 1917 |
|--------------------------------|-------------|-------------|-------------|
| | Yen | Yen | Yen |
| Imperial household..... | 3,000,000 | 4,500,000 | 4,500,000 |
| Foreign affairs..... | 2,672,573 | 4,558,942 | 4,551,542 |
| Home affairs..... | 9,792,372 | 11,874,612 | 12,788,981 |
| Finance..... | 216,894,337 | 185,111,582 | 154,518,414 |
| Army..... | 37,324,895 | 77,421,744 | 78,855,757 |
| Navy..... | 27,991,350 | 40,208,251 | 46,496,165 |
| Justice..... | 10,051,150 | 12,612,354 | 11,588,000 |
| Public instruction..... | 5,004,547 | 9,025,309 | 9,774,432 |
| Agriculture and commerce..... | 3,671,837 | 7,255,859 | 7,130,440 |
| Communications..... | 23,051,172 | 57,320,301 | 67,521,878 |
| <i>Total</i> | 339,454,233 | 409,889,044 | 397,755,609 |
| EXTRAORDINARY EXPENDITURE | | | |
| Foreign affairs..... | 2,308,141 | 1,097,531 | 2,253,600 |
| Home affairs..... | 6,212,594 | 21,742,927 | 34,641,248 |
| Finance..... | 16,039,521 | 37,842,241 | 65,282,302 |
| Army..... | 30,044,677 | 27,578,162 | 15,457,357 |
| Navy..... | 33,885,320 | 60,255,366 | 55,747,761 |
| Justice..... | 621,296 | 926,294 | 992,664 |
| Public instruction..... | 1,935,862 | 1,422,928 | 823,777 |
| Agriculture and commerce..... | 8,184,815 | 5,498,022 | 13,418,081 |
| Communications..... | 25,089,124 | 19,122,096 | 15,900,573 |
| <i>Total</i> | 124,321,350 | 175,485,567 | 204,507,363 |
| <i>Total Expenditure</i> | 463,775,583 | 585,374,611 | 602,262,972 |

being relieved of all further obligation to lend money, except voluntarily under a pub-

lic loan system such as prevails in Occidental countries.

The first loan raised by the new Government was one of 500,000 yen in silver from the British Oriental Bank in 1868, a temporary accommodation hardly in the nature of a loan. In 1878 a loan was raised in London to the amount of £1,000,000 at 9 per cent for the construction of a railway between Tokyo and Yokohama. In 1876 and the following year pension bonds were issued, increasing the national debt to 250,000,000 yen. The first real domestic loan was issued in 1877 for the extension of public works, soon followed by certain other loans. In 1886, however, all loans at more than 5 per cent interest were called in and replaced by 5 per cent bonds. A second foreign loan of £2,400,000 was floated in London a few years later at 7 per cent; and in 1897, after the close of the war with China, a loan of 43,000,000 yen in war bonds was floated at 5 per cent in London, followed by another in 1899 in the London market to the amount of £10,000,000 at 4 per cent for railway purposes. In 1902 a 5 per cent loan for 50,000,000 yen was raised in the same market, and in 1905 a loan of £10,000,000 in New York and London. The war of 1904-5 increased the indebtedness of Japan by the sum of 1,100,000,000 yen. The table below gives the general features of the Japanese national debt up to the end of March, 1916; since which time a further

JAPAN'S NATIONAL DEBT

| INTERNAL LOANS | INTEREST PAID | WHEN ISSUED | REDEMPTION PERIOD | AMOUNT ISSUED | AMOUNT REDEEMED | AMOUNT OUTSTANDING |
|---|---------------|-------------|-------------------|---------------|-----------------|--------------------|
| | | | | Yen | Yen | Yen |
| Old Public Loan..... | None | 1872 | 1921 | 10,972,725 | 9,678,972 | 1,293,753 |
| Five per cent Loans..... | Mar., Sept. | 1906-16 | 1970 | 59,151,800 | 422,750 | 58,729,050 |
| Five per cent Loan (Ko)..... | June, Dec. | 1908-9 | 1963 | 476,318,800 | 16,073,200 | 460,245,600 |
| Five per cent Loan (Special)..... | " | 1906 | 1935 | 310,407,000 | 162,275,800 | 148,131,200 |
| Five per cent Loan (Onshi)..... | Mar., Sept. | 1910-13 | 1967 | 30,000,000 | ..... | 30,000,000 |
| Four per cent Loan..... | Mar., Sept. | 1910-12 | 1969 | 276,220,000 | 6,527,950 | 269,692,050 |
| Korean Exchequer Bonds, 5%..... | June, Dec. | 1913 | 1917 | 30,000,000 | ..... | 30,000,000 |
| Railway Notes, 5%..... | Mar., Sept. | 1915 | 1920 | 30,000,000 | ..... | 30,000,000 |
| <i>Total</i> | | | | 1,223,070,325 | 194,978,672 | 1,028,091,653 |
| FOREIGN LOANS | | | | | | |
| Sterling Loan, 4% ¹ / ₂ , 1st issue..... | June, Dec. | 1899 | 1953 | 97,630,000 | 4,881,500 | 92,748,500 |
| Sterling Loan, 4 ¹ / ₂ % ¹ / ₂ , 1st issue..... | Feb., Aug. | 1905 | 1925 | 292,890,000 | 29,311,455 | 263,578,545 |
| Sterling Loan, 4 ¹ / ₂ % ¹ / ₂ , 2nd issue..... | Jan., July | 1905 | 1925 | 292,890,000 | 29,297,006 | 263,592,994 |
| Sterling Loan, 4% ¹ / ₂ , 2nd issue..... | Jan., July | 1905 | 1931 | 244,075,000 | 4,100 | 244,070,900 |
| Sterling Loan, 5%..... | Mar., Sept. | 1907 | 1947 | 224,549,000 | 4,686 | 224,544,314 |
| Paris Loan, 4% ¹ / ₂ | May, Nov. | 1910 | 1970 | 174,150,000 | 3,290 | 174,146,711 |
| Sterling Loan, 4% ¹ / ₂ , 3rd issue..... | June, Dec. | 1910 | 1970 | 107,393,000 | 195 | 107,392,805 |
| Exchequer Bonds (Paris), 5%..... | May, Nov. | 1913 | 1923 | 77,400,000 | 194 | 77,399,807 |
| Hokkaido Railway Bonds, 5% ¹ / ₂ | Jan., July | 1906 | 1921 | 3,905,200 | ..... | 3,905,200 |
| Kwansai " " 4 ¹ / ₂ % ¹ / ₂ | June, Dec. | 1906 | 1926 | 9,763,000 | ..... | 9,763,000 |
| <i>Total</i> | | | | 1,524,645,200 | 63,502,426 | 1,461,142,776 |
| <i>Grand Total</i> | | | | 2,747,715,525 | 258,481,098 | 2,489,234,429 |



SCENES IN TOKYO: JIUNISO, SHIMJIKU—SACRED PIGEONS IN ASAKUSA PARK—PINES ON THE IMPERIAL PALACE MOAT—
CHERRY BLOSSOMS IN UYENO PARK—CHILDREN AT PLAY IN THE PARK—
CHERRY BLOSSOMS OVERHANGING THE YEDO RIVER

domestic 5 per cent loan has been contracted to the amount of 40,000,000 yen for railway purposes, such funds during the previous few years having been appropriated from the national sinking fund created for the reduction of the national debt.

In comparison with the above, the following table giving Japan's debts, raised, redeemed, or outstanding, for the past fifteen years will be found interesting:

| YEAR | INTERNAL LOANS | FOREIGN LOANS | TOTAL | DEBT PER HEAD |
|-----------|----------------|---------------|---------------|---------------|
| | Yen | Yen | Yen | Yen |
| 1902..... | 388,834,195 | 97,630,000 | 486,464,195 | 10.412 |
| 1903..... | 404,596,140 | 97,630,000 | 502,226,140 | 10.843 |
| 1904..... | 432,550,811 | 97,630,000 | 530,180,811 | 10.865 |
| 1905..... | 441,332,521 | 97,630,000 | 538,962,521 | 25.262 |
| 1906..... | 661,231,837 | 605,306,000 | 1,266,537,837 | 36.922 |
| 1907..... | 899,975,947 | 970,410,310 | 1,870,386,257 | 42.912 |
| 1908..... | 1,049,546,503 | 1,146,160,579 | 2,195,707,082 | 43.486 |
| 1909..... | 1,088,645,228 | 1,165,701,224 | 2,254,346,452 | 42.141 |
| 1910..... | 1,062,605,599 | 1,165,701,224 | 2,228,306,822 | 48.438 |
| 1911..... | 1,417,128,864 | 1,165,675,449 | 2,582,804,313 | 39.356 |
| 1912..... | 1,203,139,900 | 1,447,215,716 | 2,650,355,615 | 38.001 |
| 1913..... | 1,116,216,270 | 1,437,449,203 | 2,553,665,473 | 35.780 |
| 1914..... | 1,066,247,341 | 1,427,682,905 | 2,492,930,245 | 34.198 |
| 1915..... | 1,054,633,854 | 1,490,436,651 | 2,545,070,505 | 34.155 |
| 1916..... | 991,531,578 | 1,485,550,664 | 2,477,082,242 | 32.525 |

During the buoyant times that have prevailed since the outbreak of the war the Government has taken every opportunity of redeeming portions of the national debt. At the close of September, 1917, the total stood at 2,485,913,311 yen, of which 1,353,470,089 yen was foreign obligations and the balance was owed internally. If these figures are compared with those for 1916 in the table above it will be seen how Japan, while her debt has increased by only about nine millions, has reduced her foreign obligations by over 130,000,000 yen, while she has become a greater debtor to her own people—in other words, more self-contained financially.

Japan took advantage of the low rate of interest prevailing in 1910 to raise 4 per cent loans for the purpose of converting her 5 per cents, so far as the period for not redeeming which had expired, thus saving the treasury an annual outlay of £368,739 in interest. The total amount of loans so redeemed or converted was 523,300,000 yen. The National Debt Consolidation Fund Bill provides that not less than 110,000,000 yen shall be set apart annually from the general account for the purpose of redeeming the war bonds issued in connection with the Russo-Japanese War; and later a sinking fund was established to receive an annual allotment of 50,000,000 yen toward reduction of the national debt; but after the fall

of the Katsura ministry the provision was not wholly respected, large sums being taken from the sinking fund for railway purposes; but the Terauchi cabinet promised to restore the annual appropriation of 50,000,000 yen to the sinking fund. Owing to the abnormal increase of specie holdings during the European war further reductions have been made in the national debt; but there is a general conviction in financial circles that it is better

to hold the debt at present than have to borrow at higher interest after the war.

BANKS AND BANKING

It has already been shown that the Government, finding itself without proper monetary organs at the beginning of the Meiji era, induced wealthy companies to undertake banking business under special control of a Board of Trade; but the privilege of issuing gold and silver certificates, which they possessed, led to their undoing and the whole banking system of the Empire had to be reorganised in 1872, the Government promulgating National Bank Regulations modelled on the National Bank Act of the United States. The new regulations provided for the conversion of national bank notes into specie. Further regulations were issued in 1883 depriving national banks of the right to issue notes; and other regulations in 1884 provided for the establishment of savings banks. Meanwhile the producing power of the people was growing, capital was accumulating, foreign trade was fast developing, and bank deposits experiencing unprecedented increases. By 1893 the number of banks had grown to 763, with 94,000,000 yen of capital, 45,000,000 yen of deposits, with loans amounting to 178,000,000 yen, and bills discounted aggregating 211,000,000 yen. In 1903 the number of banks was 2,307; total capital, 377,000,000 yen; deposits, 755,000,-

000 yen; loans, 579,000,000 yen; bills discounted, 3,587,000,000 yen. Thus rapid development continued until, in 1913, the number of Japanese banks was 2,165; capital, 704,000,000 yen; deposits, 11,048,000,000 yen; loans, 3,050,000,000 yen; and bills discounted, 3,059,000,000 yen annually.

The banks of Japan are divided into two classes, ordinary and special banks, the former for the general circulation of capital and the latter for specific functions. The ordinary banks are under control of the Minister of Finance whose license is required for their establishment or for the amalgamation of existing institutions. He is empowered to investigate the condition of a bank at any time; and all banks must submit to him semi-annually a balance sheet and publish the same in the press. The special banks are, as has been said, for special purposes, on which account they have certain restrictions which are compensated for by certain privileges, enabling them to make more profit, while at the same time they are under government protection and control.

FOREIGN BANKS

AMONG the foreign banks doing business in Japan are the Hongkong & Shanghai Banking Corporation, the Chartered Bank of India, Australia, and China, The International Banking Corporation of the United States, and the Russo-Asiatic Bank, for further details in connection with which the reader is referred to the Foreign Banking Section (see page 129), following the detailed description of the Japanese banks.

LOAN ASSOCIATIONS

BESIDES the banks there are in Japan Loan Associations for the purpose of affording financial facilities to the poorer classes. The Mutual Loan Society Act, passed in 1915, restricts promoters of loan associations to persons with a capital of at least 30,000 yen. At present these societies throughout the country number 831, with a capital of 20,336,750 yen of which only 6,946,884 yen is paid up, and having liabilities of 137,000,000 yen. In Japan much use is made of pawnbrokers, of whom there are some 30,000, whose interest on loans amounts to from 20 to 48 per cent per annum. There is great need for enlarging the scope of the Credit Associations to provide still greater accommodation to those now exposed to the rapacity of usurers.

A difficulty which foreigners experience in connection with investments in Japanese securities should here be mentioned. It is very difficult for those not able to read the Japanese language to ascertain just when securities are redeemed; and it often occurs

that the holder of bonds does not find this out until the coupons for the next half-year are presented, when he discovers that the bonds were redeemed six months before and he must lose half a year's interest. This is especially the case with municipal bonds, notice of the redemption of which may be published in some obscure journal, and even banks sometimes are unaware that the securities they have in safe-custody have been redeemed.

NATIONAL WEALTH OF JAPAN

OUTSIDE the realm of government finance and banking, statistics are not so easily available, but the finances of the larger towns, villages, and municipalities are known. The revenue of prefectures consists of taxes, rates, and also of grants from the national treasury. A sur-tax is levied on the five national taxes: on business, land, income, mining, and placer mining tax. The total amount granted from the national treasury to prefectures in 1915 was 43,000,000 yen; and special subventions are made in cases of epidemic, flood, for riparian work or industrial encouragement. The revenue of towns and municipalities comes from property, rents and taxes, school fees and treasury grants, with the same sur-taxes as prefectures levy. The total revenue for Japanese prefectures, towns, villages, and municipalities during the year 1915 was 286,755,540 yen, and the total expenditure 283,746,924 yen, while the total indebtedness of the towns, villages, and municipalities of the Empire was 334,892,234 yen. Of this indebtedness the amount of 191,359,000 yen rests on the cities of Tokyo, Kyoto, Osaka, Yokohama, and Nagoya, as foreign loans.

The present national wealth of Japan as a whole is estimated as follows:

| | YEN |
|---|-----------------------|
| Land..... | 17,052,000,000 |
| Buildings..... | 6,771,000,000 |
| Furniture and valuables..... | 3,428,000,000 |
| Domestic animals, poultry, etc. | 205,000,000 |
| Minerals..... | 1,059,000,000 |
| Marine products..... | 1,476,000,000 |
| Forestry products..... | 776,000,000 |
| Electric, gas and water works.. | 337,000,000 |
| Ships, warships, and rolling stock..... | 772,000,000 |
| Gold and silver coins and bullion..... | 401,000,000 |
| Banks and companies..... | 1,060,000,000 |
| Merchandise..... | 1,511,000,000 |
| Railways, telegraphs, and telephones..... | 1,338,000,000 |
| Libraries..... | 27,000,000 |
| Harbours, rivers, and canals.. | 1,303,000,000 |
| <i>Total.....</i> | <i>37,516,000,000</i> |
| Wealth per capita..... | 725,000 |

THE BANK OF JAPAN

THE Bank of Japan was created in 1882 as a necessary part of the Government's scheme for replacing the paper currency by metal and for bringing private banks and banking companies into uniformity, and soon it became the only institution authorised to issue notes. The bank started with a capital of 10,000,000 yen, which has been three times increased, and now stands at 60,000,000 yen, of which 37,500,000 yen is paid up. This bank is privileged to issue notes against gold and silver coins and bullion and, further, to issue notes on security of government bonds or treasury bills and other bonds or bills of a reliable nature, the maximum of notes in the latter case being 120,000,000 yen. In case of necessity the maximum may be exceeded, provided the bank pays a tax of at least 5 per cent per annum. The business of the Bank of Japan is principally to discount or purchase government bills, bills of exchange, or commercial bills; to buy or sell gold or silver bullion; to make loans on security of gold or silver coins or bullion; to collect bills for banks, companies, or merchants, who are regular customers; to receive deposits and accept custody of articles of value in precious metals or documents; to make advances for fixed periods on security of government paper or documents guaranteed by the Government. The Bank of Japan is also entrusted with the management of the treasury receipts and disbursements.

The expansion of business transacted by the bank is illustrated by a comparison of the figures shown in the following tables:

THE AMOUNT OF NOTE ISSUES AND SPECIE RESERVE ON HAND AT THE CLOSE OF FIVE-YEAR PERIODS

| YEAR | NOTE ISSUES | SPECIE RESERVE |
|----------------|-------------|----------------|
| | YEN | YEN |
| 1885..... | 3,956,161 | 3,311,461 |
| 1890..... | 102,931,766 | 44,622,413 |
| 1895..... | 180,336,815 | 60,370,797 |
| 1900..... | 228,520,032 | 67,349,129 |
| 1905..... | 312,790,819 | 115,595,026 |
| 1910..... | 401,624,928 | 222,382,465 |
| 1915..... | 430,138,010 | 248,417,800 |
| 1916..... | 601,224,410 | 410,519,000 |
| 1917 (June 30) | 605,918,047 | 486,520,060 |

TOTAL TRANSACTIONS OF THE BANK

| YEAR | YEN |
|---|---------------|
| 1882 (for 83 days from Oct. 10 to Dec. 31)..... | 5,762,270 |
| 1885..... | 882,315,837 |
| 1890..... | 1,213,369,812 |

TOTAL TRANSACTIONS OF THE BANK (Continued)

| YEAR | YEN |
|-----------|----------------|
| 1895..... | 3,013,921,253 |
| 1900..... | 9,748,987,192 |
| 1905..... | 29,156,254,123 |
| 1910..... | 38,702,112,955 |
| 1915..... | 34,674,112,431 |
| 1916..... | 40,610,210,097 |

The administration of the Bank of Japan is in the hands of the Administrative Board consisting of one Governor, one Vice-Governor, and four Directors. The Governor presides over the Administrative Board and executes the resolutions passed at the meetings of the board. The present Governor is Viscount Yataro Mishima, and the Vice-Governor is Kesaroku Mizumachi, Hogakuhakushi.

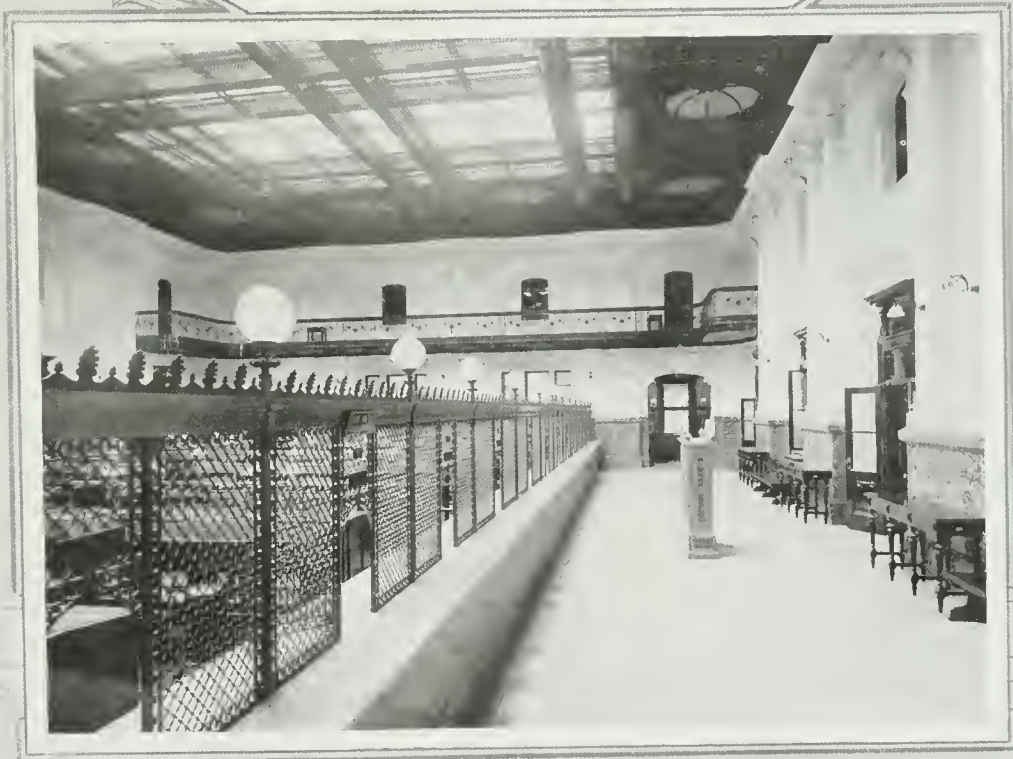
The business at the head office of the bank is actually conducted through the following divisions, under the management of a chief officer for each division: (1) Inspector's Bureau; (2) Business Department; (3) Cash Department; (4) Treasury Department; (5) Secretary's Department; (6) Securities Department; (7) Accountant Department; (8) Economic Research Department; (9) Private Secretary's Bureau. The bank has eleven branches which are located at Osaka, Saibu (Moji), Kyoto, Nagoya, Otaru, Hakodate, Fukushima, Hiroshima, Kanazawa, Niigata, and Matsumoto.

The Bank of Japan publishes a half-yearly balance sheet in February and August of each year, when the general meetings of shareholders are to be held, and at the general meeting in February also publishes a business report for the preceding year. In addition to these reports the bank publishes on each Wednesday a weekly balance sheet.

The half-yearly report to June 30, 1917, showed a surplus, or net profit for the term, of 4,691,961.54 yen which was distributed as follows: Ordinary dividends at 6 per cent per annum, 1,125,000 yen; secondary dividends at 6 per cent, 1,125,000 yen; depreciation in properties, 10,000 yen; bonuses and social expenses for officers, 182,000 yen; carried forward, 1,749,961.54 yen.

THE YOKOHAMA SPECIE BANK, LIMITED

THE Yokohama Specie Bank, Limited, officially known in Japan as the Yokohama Shokin Ginko, is perhaps the most prosperous and popular of all the banking institutions of the Empire, being second to none save the Bank of Japan. Founded in 1880 with a capital of 3,000,000 yen, for the purpose of affording financial facilities to the nation's foreign trade, the institution passed triumphantly through the economic vicissitudes



THE HEAD OFFICE OF THE YOKOHAMA SPECIE BANK, LIMITED, YOKOHAMA

of early Meiji finance and became independent of state aid as early as 1889. Since that time, owing to steady expansion and augmentation of business, the bank has been obliged to double its capital four times, until now it stands at 48,000,000 yen, of which 36,000,000 yen is paid up, with a substantial reserve fund amounting to 22,100,000 yen, and paying an annual dividend of 12 per cent since 1902.

The Yokohama Specie Bank was originally conducted under the provisions of the National Banking Law; but a special Imperial Ordinance, entitled "The Yokohama Specie Bank Regulations," promulgated in 1887, provides strict government supervision, under which all the business of the bank is now carried on. The accounts of the bank are always open to the government auditor, and a half-yearly balance sheet approved by him has to be presented to the Government and published in the press. The term of the bank's business operations was originally fixed at a period of twenty years from the foundation of the institution; but at an Extraordinary General Meeting of the shareholders convened on September 10, 1897, it was decided, with the approval of the Minister of Finance, to prolong the term for another twenty years, commencing from February 28, 1900; after which there is no doubt that the term will again be extended.

Among the great financial institutions of Japan the Yokohama Specie Bank, Limited, occupies a position of yearly increasing importance. It is often entrusted with matters relating to foreign loans and with the management of public money for international account. As the chief monetary organ of the nation's foreign commerce, the Yokohama Specie Bank pays particular attention to foreign exchange and the financial adjustment of trade. During the war in Europe this bank took an important part in floating the British, French, Russian, and other loans in Japan for the promotion of the interests of the Allies. The bank is authorised to issue in the Province of Kwantung and in China bank notes convertible into silver.

The ordinary business of the Yokohama Specie Bank consists of foreign and inland exchange, loans, deposits of money and safe-custody of articles of value, discount and collection of bills of exchange, promissory notes and other securities, as well as exchange of coins. The bank may also buy and sell public bonds, gold and silver bullion, or foreign specie, as circumstances may dictate.

The enormous extent of the bank's business may be inferred from its increasing extension in every part of the world. In Japan the bank has branches in Tokyo, Osaka, Kobe,



THE PALACE OF THE GOVERNOR OF KANAGAWA PREFECTURE AT YOKOHAMA

and Nagasaki, while abroad it has branches at London, England, and Lyons, France. In the United States branches of the Yokohama Specie Bank, Limited, are found at New York, San Francisco, and Los Angeles, as well as at Honolulu. Further branches are at Sydney, Australia, Bombay and Calcutta, India, and Hongkong and Singapore. In China branches are established at Shanghai, Tsingtau, Sinanfu, Hankow, Tientsin, Peking, Newchwang, Dairen, Port Arthur, Mukden, Tiehling, Changchun, Antung-Hsien, Harbin, and Liaoyang. The bank also has correspondents in all the chief cities of the world, numbering in all some three hundred and fifty.

The superb structure which forms the head office of the Yokohama Specie Bank, Limited, at Yokohama adapts the best features of modern bank buildings of the most advanced

type to the requirements of customs and conditions peculiar to Japan, architectural beauty being skillfully modified both externally and internally to secure solidity in a land of earthquakes, as well as to ensure utility of service.

The Yokohama Specie Bank, Limited, has always been fortunate in the character and capacity of its personnel. The present president of the institution, J. Inouye, Esq., is one of the most distinguished of the nation's younger financiers, as well as a master of foreign economic knowledge; while the vice-president, Mr. Y. Yamakawa, and all the directors are no less prominent among the financial circles of the Empire.

The table below, giving the balance at the end of each year, will indicate the progress of the bank's business during ten ordinary years.

| YEAR | AUTHORISED CAPITAL | RESERVE FUND | DEPOSITS | LOANS | EARNINGS | NET PROFIT | DIVIDEND |
|------|-----------------------|-----------------|-------------|-------------|------------|---------------|-------------|
| | Yen | Yen | Yen | Yen | Yen | Yen | Per Cent |
| 1906 | 24,000,000 | 13,934,861 | 120,004,921 | 82,981,221 | 22,125,099 | 4,903,032 | 12 |
| 1907 | 24,000,000 | 14,591,707 | 120,747,331 | 99,379,166 | 24,105,828 | 4,030,405 | 12 |
| 1908 | 24,000,000 | 15,490,928 | 116,526,482 | 63,958,138 | 22,238,051 | 3,830,125 | 12 |
| 1909 | 24,000,000 | 16,483,130 | 144,864,900 | 54,740,180 | 21,024,000 | 3,655,731 | 12 |
| 1910 | 24,000,000 | 17,064,101 | 120,864,978 | 68,339,947 | 21,415,574 | 3,500,382 | 12 |
| 1911 | 48,000,000 | 17,514,833 | 140,435,183 | 83,461,469 | 20,859,329 | 3,837,346 | 12 |
| 1912 | 48,000,000 | 18,210,252 | 166,191,379 | 105,017,699 | 28,166,562 | 4,323,925 | 12 |
| 1913 | 48,000,000 | 19,819,232 | 187,851,101 | 107,274,127 | 43,325,951 | 4,348,427 | 12 |
| 1914 | 48,000,000 | 20,085,268 | 180,890,765 | 104,012,185 | 43,229,419 | 4,367,759 | 12 |
| 1915 | 48,000,000 | 21,350,172 | 174,573,759 | 94,320,381 | 38,108,817 | 4,401,468 | 12 |

| LIABILITIES | | ASSETS | |
|----------------------------------|--------------------|---------------------------------|--------------------|
| | Yen | Yen | Yen |
| Capital (paid up)..... | 36,000,000.00 | Cash account: | |
| Reserve fund..... | 22,100,000.00 | In hand.... | 39,915,479.39 |
| Reserve for doubtful debts... | 2,828,504.21 | At bankers.133,320,613.13 | 173,236,092.52 |
| Notes in circulation..... | 20,023,208.95 | Investments in public securi- | |
| Deposits (current, fixed, etc.) | 527,004,429.91 | ties..... | 25,780,511.68 |
| Bills payable, bills rediscount- | | Bills discounted, loans, advan- | |
| ed, acceptances and other | | ces, etc..... | 225,531,618.83 |
| sums due by the bank.... | 368,909,057.45 | Bills receivable and other sums | |
| Dividends unclaimed..... | 10,304.77 | due to the bank..... | 551,767,497.66 |
| Balance of profit and loss | | Bullion and foreign money.. | 3,476,836.33 |
| brought forward from last | | Bank's premises, properties, | |
| account..... | 2,226,757.81 | furniture, etc..... | 2,963,397.00 |
| Net profit for the past half- | | | Yen 982,755,954.02 |
| year..... | 3,653,690.92 | | |
| | Yen 982,755,954.02 | | |

PROFIT AND LOSS ACCOUNT

| DR. | | CR. | |
|----------------------------------|-------------------|--------------------------------|-------------------|
| | Yen | | Yen |
| To interests, taxes, current ex- | | By balance brought forward | |
| penses, rebate on bills cur- | | June 30, 1917 | 2,226,757.81 |
| rent, bad and doubtful debts, | | By amount of gross profits for | |
| bonus for officers and clerks, | | the half-year ending Decem- | |
| etc..... | 46,084,294.89 | ber 31, 1917 | 49,737,985.81 |
| To reserve fund..... | 1,000,000.00 | | Yen 51,964,743.62 |
| To dividend: | | | |
| 6.00 yen per old share for | | | |
| 240,000 shares | | | |
| 3.00 yen per new share for | 2,160,000.00 | | |
| 240,000 shares | | | |
| To balance carried forward to | | | |
| next account..... | 2,720,448.73 | | |
| | Yen 51,964,743.62 | | |



PHENIX PAVILION, SHOWING ARCHITECTURE OF 1,200 YEARS AGO

The figures in the tables on this page show the position of the Yokohama Specie Bank as at December 31, 1917.

Following are the Directors of this important institution: Messrs. Junnosuke Inouye, President; Yuki Yamakawa, Vice-President; Nagatane Soma, Kokichi Sonoda, Riyemon Kimura, Rokuro Hara, Masnoske Odagiri, Tehunosuke Kawashima, Baron Koyata Iwasaki, and Konojo Tatsumi.

THE DAI-ICHI GINKO, LIMITED

THIS important institution, which deservedly ranks very high in banking circles in Japan, was formerly the First National Bank, and was established in 1873. Several changes took place in the early history of the bank, and its capital was at different stages increased to enable it to extend its operations. The Dai-Ichi Ginko was formally incorporated under the present Banking Act of Japan in 1896, and its development has been such that now it is one of the richest and most sound of the first group of important banks in the country. The capital is 22,700,000 yen, of which 16,250,000 yen has been fully paid up, and its reserves amount to the substantial total of 11,200,000 yen. A general banking business is conducted on a wide scale both locally and abroad. The bank's head office is at No. 1 Kabutocho, Nihonbashi-ku, Tokyo. Branches are maintained in Yokohama, Kyoto, Hakodate, Kobe, Osaka, Nagoya, Otaru, and Shimonoseki, as well as sub-branches in each of the most important centres, the total in Japan being twenty-four. In Korea the Dai-Ichi Ginko has branches at Seoul and Fusan, while in foreign countries it is represented by correspondents among the leading banks of the world. The Board of Directors consists of the following: Chairman, Mr. Y. Sasaki; Directors, Baron H. Mitsui, Prince Y. Tokugawa, and Messrs. T. Kumagai, Y. Kusaka, S. Sasaki, and G. Tanaka. The Auditors are Messrs. T. Doki and J. Odaka. In the forty-second half-yearly report for the period ending June 30, 1917, the Directors were able to show a very satisfactory state of affairs for this famous bank. The gross profit was 5,676,277.55 yen, from which had to be deducted the general expenditure of 3,963,614.10 yen, leaving a net profit of 1,712,663.45 yen, to which was added the balance brought forward from the last account, *viz.*, 819,535.93 yen, making a total divisible profit of 2,532,199.38 yen. Of this sum 700,000.00 yen was added to the reserve (thus raising that account to 11,200,000.00 yen). Dividends were declared totalling 864,187.50 yen; 85,630.00 yen was allotted as bonus to directors, auditors, and chief officers; 34,250.00 yen was added to the pension fund and a



TOKYO PREMISES OF DAI-ICHI GINKO, LIMITED

| LIABILITIES | | ASSETS | |
|---------------------------------|--------------------|-----------------------------|--------------------|
| | Yen | | Yen |
| Capital..... | 22,700,000.00 | Unpaid capital..... | 6,450,000.00 |
| Reserve fund..... | 10,500,000.00 | Cash in hand and with the | |
| Redemption fund for the bank | | Bank of Japan..... | 18,666,938.25 |
| notes..... | 5,122,000.00 | Investments..... | 32,251,864.35 |
| Current accounts..... | 95,526,764.47 | Bills discounted..... | 58,211,560.63 |
| Deposit receipts..... | 83,855,274.08 | Loans and advances..... | 118,073,420.42 |
| Other liabilities..... | 14,886,374.03 | Due from correspondents.... | 3,162,882.07 |
| Due to correspondents..... | 3,802,545.59 | Liability of customers for | |
| Acceptances for customers ... | 1,843,586.38 | acceptances per contra.... | 1,843,586.38 |
| Balance brought forward..... | 819,535.93 | Bank premises, etc..... | 2,108,491.83 |
| Net profits for the half-year.. | 1,712,663.45 | | |
| | Yen 240,768,743.93 | | Yen 240,768,743.93 |

balance of 848,131.88 yen was carried forward to the next half-year. The balance sheet for the period to June 30, 1917, is given above.

THE JUGO GINKO, LIMITED

This institution is also known as the Fifteenth National Bank, or Nobles' Bank. It was founded under the old National Banking Act in May, 1877, and on the termination of the original charter it was reorganised in

all respects as a joint-stock concern with a capital of 18,000,000 yen. In the following year Mr. K. Sonoda was elected President. By October, 1913, the capital of the Jugo Bank, Ltd., was increased to 40,000,000 yen, of which 23,500,000 yen is now paid up. The reserves now total 5,800,000 yen. The Governing Board comprises the Hon. Iwao Matsukata, President; Mr. Masayasu Naruse, Vice-President, and the following Directors: Mr. Kokichi Sonoda, Viscount

Hisayoshi Kano, Viscount Yukiyo Aoyama, Mr. Yoshitero Shimizu, Marquis Yorimichi Tokugawa, and the Hon. Nayayuki Asano. The Auditors are Messrs. Mazakazu Hisano, Naoyoshi Yamamoto, and Tomaki Hano. Mr. Yutsuha Sato is the Manager and Mr. Kazusuke Kumai is the Sub-Manager. The head office is at No. 6 Kobiki-cho, Shichichome, Kyobashi-ku, Tokyo, and there is one branch at Nihonbashi-ku in the metropolitan area. The Jugo Bank, Ltd., has the following London branches and agencies: Parr's Bank, Ltd., Lazard Bros. & Co., and the Union Discount Co., of London, Ltd.

The Jugo Bank, Ltd., does a general banking business and its record is one of continued and pronounced success. The last balance sheet, to June 30, 1917, showed the state of affairs for the six months' operations (see next page).

THE INDUSTRIAL BANK OF JAPAN, LIMITED (NIPPON KOGYO GINKO)

THE Industrial Bank of Japan is one of the special banks under direct charter from the Imperial Government, and was established in 1902, under the provisions of a special act of the Imperial Diet which

| Dr. | Yen | Cr. | Yen |
|--|---------------|---|---------------|
| Capital..... | 40,000,000.00 | Capital unpaid..... | 16,500,000.00 |
| Reserve funds..... | 5,540,000.00 | Loans on securities and bills discounted..... | 39,700,684.85 |
| Deposits, current accounts, etc. | 44,750,246.10 | Account with Bank of Japan and other banks..... | 5,659,263.40 |
| Due to other banks and agents | 388,913.68 | Government bonds (face value 33,726,300.00 yen)..... | 22,232,980.25 |
| Dividends unpaid..... | 579.39 | Foreign government bonds.... | 998,000.00 |
| Rebate on bills discounted and interest unpaid..... | 536,681.96 | Other securities..... | 3,459,600.00 |
| Profit..... | 2,364,203.40 | Due from other banks and agents..... | 340,176.84 |
| | | Bank premises, etc..... | 462,961.06 |
| | | Cash..... | 4,226,958.13 |
| | 93,580,624.53 | | 93,580,624.53 |

PROFIT AND LOSS ACCOUNT FOR THE SIX MONTHS ENDING JUNE 30, 1917

| | | | |
|--|--------------|-----------------------------------|--------------|
| To reserve fund..... | 260,000.00 | By net profit for the half-year.. | 1,394,894.13 |
| " bonus for the officers..... | 68,000.00 | " balance brought forward | |
| " dividends for the half-year at the rate of 9 per cent per annum..... | 1,057,500.00 | from Dec. 31, 1916..... | 960,309.27 |
| " balance carried forward to next account..... | 978,703.40 | | |
| | 2,364,203.40 | | 2,364,203.40 |

promulgated laws for the organisation and control of industrial banks. The object of the bank's existence is to deal in negotiable instruments, supply capital for various industrial operations, act as a medium for the importation of foreign capital, and deal with trust business. In detail, the special operations of the Industrial Bank may be described as follows: (1) making loans on the security of national loan bonds, prefectural or municipal loan bonds, or debentures and shares; (2) subscribing for, or underwriting, national loan bonds, etc.; (3) receiving money on deposit and valuables for safe custody; (4) undertaking trust business; (5) discounting bills; (6) buying and selling of exchange; (7) making loans on the security of estates (*zaidan*) created by virtue of special laws; (8) making loans on the security of lands and buildings belonging to factory companies; (9) making loans on the security of land and buildings in cities and towns designated by Imperial Ordinance, and (10) carrying on other banking business sanctioned by the Minister of Finance in accordance with laws or ordinances. As indicated by these items the Industrial Bank of Japan is under direct Government control. The



PREMISES OF JUGO GINKO, LIMITED



PREMISES OF THE NIPPON KOGYO GINKO (INDUSTRIAL BANK OF JAPAN, LIMITED), TOKYO, AND A CORNER OF THE BANKING CHAMBER

President, Vice-President, and Directors are all nominated by the Government, and the auditors are selected among the shareholders. Since the organisation of the bank some of the most prominent business men of Japan have been on the directorate, and the whole history of the institution, together with its sound and conservative control and its prestige, well warrant the very high reputation in which it is held, not only in Japan, but in foreign countries. The original capital of the Industrial Bank was Yen 10,000,000, but with the rapid expansion which took place an increase of capital was imperative. In April, 1906, this was raised to Yen 17,500,000, the additional amount being easily secured in the foreign money market. A further increase took place in August, 1917, when new shares were issued of a face value of Yen 12,500,000, 75,000 being offered for public subscription, and the rest being assigned to the original shareholders at the rate of one new share against every two old ones. With this new capital a broad scheme of extension is now being carried out by the bank, including the financing of industrial workers at home, and the capitalisation of coöperative enterprises in China. The Vice-President, Dr. Ono, paid a visit to the United States in 1917, and consulted with the leading financiers of that country on questions of an industrial and financial nature on which the two groups of banking institutions are mutually interested in the development of public works in China.

The general expansion of the business of the Industrial Bank has been remarkable in the last few years. Not only has it invested money in all parts of Japan proper and Korea, but as suggested above, it is heavily involved in China and has decided to expand its influence in that field to a much greater extent. On the other hand, the bank has been the medium for the importation of several hundred millions of foreign money from the French, British, and American markets. Again, the Industrial Bank has invested a large sum of money in the Franco-Japanese Bank, which was established with the coöperation of Japanese and French capitalists. That the President of the Industrial Bank is at the same time Vice-President of the Franco-Japanese Bank, and the directors of the former are on the board of the latter institution, shows how substantial is the backing of the Franco-Japanese Bank. Since the opening of the foreign exchange business the Industrial Bank has been dealing not only with the sale and purchase of foreign bills of exchange, but has exerted all its influence to make the Western and Eastern monetary circulation more and more smooth.

The officers of the Industrial Bank of Japan are: President, Mr. T. Shidachi; Vice-President, Dr. Y. Ono; Directors, Messrs. T. Aoki, T. Iwasa, and M. Ninomiya; Auditors, Messrs. N. Soma, F. Uriu, and K. Kawakami. The head office of the bank is at No. 1 Zeni-game-cho, Kojimachi-ku, Tokyo. Below is given the statement of assets and liabilities as at June 30, 1917.

THE BANK OF CHOSEN

VITALLY important to the development of the Japanese territory of Chosen (Korea) is the existence of a strong financial institution, under government auspices, and such a need is fulfilled by the Bank of Chosen which operates under special charter from the Imperial Japanese Government. This bank was formerly known as the Bank of Korea, and was established in October, 1909, as the central bank of Chosen with a capital of Yen 10,000,000. In the following year Korea was annexed by Japan, and in consequence the bank was reorganised under its present title, with a charter from the Government.

During the first few years of the bank's existence, its energies were devoted exclu-

sively to Chosen, there being a great deal to be done there, just as the Bank of Taiwan had found much to do in Formosa when commercial and industrial order and system had to be established in the place of chaos. In Chosen the work of coinage reform, which had been set afoot by the Imperial authorities, was still going on, and the Bank of Chosen was required to complete it. The Government and the municipalities were greatly in need of funds to prosecute various public works and the bank was called upon to supply the money; new enterprises were springing up in all directions, and those that were at all worthy of encouragement had to be accommodated financially. Generally Chosen was in its commercial and financial birth, and all needs had to be met by the bank, as far as possible. By the time the institution began to turn its attention to the market outside the peninsula, the country was in a fair way to prosperity, a fact readily admitted to be largely attributable to the work of this institution.

In the year 1913 the Bank of Chosen was ready to extend its operations abroad, and a ready field was found in Manchuria, not only because it lies so close by, but because

| DR. | CR. |
|--|---|
| Yen | Yen |
| Capital (350,000 shares of 50 yen).....17,500,000.00 | Cash on hand and at bankers' 1,485,188.62 |
| Debentures issued.....76,853,400.00 | Money at call.....21,663,369.66 |
| Deposits.....38,071,793.73 | Advances current account....213,044.40 |
| Reserves.....2,116,800.00 | Fixed loans.....34,495,608.40 |
| Dividend unclaimed.....71,490.25 | Loans on lands and buildings 767,323.50 |
| Correspondents' accounts.....26,885.34 | Bills discounted.....32,123,061.43 |
| Net profit for half-year.....675,138.00 | Internal national loan bonds..10,195,220.03 |
| Funds in trust and other sums | Foreign national loan bonds..21,016,873.72 |
| due by the bank.....16,981,665.82 | Local loan bonds.....8,474,778.58 |
| Yen 152,297,173.14 | Shares and debentures.....4,078,525.28 |
| | Funds in agencies.....15,447,326.50 |
| | Difference on subscription of debentures.....1,753,147.02 |
| | Correspondents' accounts....112,142.15 |
| | Bank premises, etc.....235,800.99 |
| | Properties acquired through liquidation of debts.....235,062.86 |
| | Yen 152,297,173.14 |

PROFIT AND LOSS ACCOUNT

| DR. | CR. |
|--|--|
| Yen | Yen |
| Current expenses, interests.....3,592,481.10 | Gross profits for the half-year including 60,138 yen. Balance of Profit and Loss Account, Dec. 31, 1916.....4,267,619.10 |
| Reserve fund.....68,000.00 | |
| Dividend.....525,000.00 | |
| Remuneration to officers.....20,000.00 | |
| Balance carried forward.....62,138.00 | |
| Yen 4,267,619.10 | Yen 4,267,619.10 |



HEAD OFFICE OF THE BANK OF CHOSEN, SEOUL



MAP SHOWING THE SPHERE OF ACTIVITY OF THE BANK OF CHOSEN



MR. SHUNKICHI MINOBE, GOVERNOR OF THE
BANK OF CHosen

the economic relations between the two countries, which were steadily growing, necessitated some banking facilities being established between the two. This initial step was further justified by the fact that the Bank of Chosen had had a foothold in Manchuria for some time through its branch at Antung, from which centre its bank notes had widely circulated. The establishment of branches in Mukden, Changchun, and Dairen was the next step in the northward movement. To-day the Bank of Chosen has twelve branches in Manchuria including, besides those above mentioned, Newchwang, Harbin, Kirin, Szupingchieh, Kaiyuan, Fuchiatien, Yongchungchun, and Tsingtao. Meanwhile the bank's relations with eastern Siberia had been constantly growing, but as no branch of a foreign bank can be established on Russian territory, the Bank of Chosen took over the business and premises of the Matsuda Bank of Vladivostock, which had been doing business there for some years.

The activity of the bank in Japan proper, where it has three branches, namely, Tokyo, Osaka, and Kobé, has naturally been less conspicuous, though it has been no less significant. Its business there could not but grow along with the increase in the trade of the country with Chosen and Manchuria. Besides, as a member of the syndicate of large banks in Japan, not a single loan of national importance has been floated there of recent years but that the Bank of Chosen has taken a part in the operations. With the expansion of its network of branches and the resultant inclusion in its sphere of activity of such important ports as Dairen, Harbin, Vladivostock, and Kobé, the relations of the bank with the world at large became closer. The foreign business of the bank has in consequence assumed an importance never before known, and the recent establishment at its head office of a foreign department was necessitated by these circumstances. This enlargement of business in all directions necessarily entailed a greater need of funds. Thus it naturally followed that an augmentation of the capital of the institution had to be considered and the proposal to double its capital from Yen 10,000,000 to Yen 20,000,000 was submitted to the general meeting in February, 1917, and was unanimously carried. At the same time 30,000 shares were offered for public subscription, the rest being allotted to old shareholders. The shares were over-subscribed three times, and only those applications offering a premium of Yen 29 or over were considered, those of Yen 29 premium being accepted in part only.

THE BANK OF TAIWAN, LIMITED

THE rapid economic development of the newly acquired territories of Formosa (Taiwan) and Chosen, is largely attributable to excellent banking facilities which have been provided for those dependencies under a wise system of state-aided institutions such as the Bank of Taiwan, Limited. This bank was founded under Government auspices, at a time when there existed great need for some substantial financial organisation to stabilise credit, normalise interest, maintain a uniform monetary system, and generally restore order out of the chaos which had existed in the island under the old régime. It was also necessary, if the economic state of Taiwan was to be in any sense equal that of Japan, or the island to become a valuable trade acquisition to the Empire, that a bank, backed by the Government, and to that extent a state-controlled institution, should be established. This was accordingly done by a law passed in March, 1897, which empowered the Imperial Government to establish the Kabushiki-Kaisha Taiwan Ginko, and to finance it in certain directions. The organisation of the institution was immediately entered upon, and a charter was granted for twenty years to a group of promoters, approved by the Government. The Government took up stock in the bank to the extent of Yen 1,000,000.00, out of the original capital of Yen 5,000,000.00, and in July, 1899, loaned to the bank the sum of Yen 2,000,000.00 in one-yen silver coins for five years without interest. Under the charter the bank was authorised to conduct a general banking business; to issue currency notes; to act as the Imperial Government's bankers; to regulate the monetary system, and generally to

fulfil the broad objects which had led to its foundation. With the Government and members of the Imperial Household as shareholders, and under the most influential official and commercial support, the Bank of Taiwan formally opened for business on September 26, 1897, its head office being at Taipeh, and with branches in Tokyo and the other principal cities of Japan, China, Hongkong, Singapore, Soerabaya and other Eastern centres and in London and New York. That the Bank of Taiwan in its eighteen years of existence has fulfilled the hopes of its promoters, and has rendered an immensely valuable service to Taiwan and the Japanese Empire generally, there is no doubt. Furthermore, it has proved a big financial success, and it is to-day one of the most powerful and substantial financial institutions in the Orient. In fulfilment of the object of its establishment, the Bank of Taiwan has lessened the difficulties of the monetary circulation, reduced the general rate of interest, and has helped in the development of various enterprises by supplying ready funds at low rates of interest. The directors have brought the natives to understand the nature of credit and to appreciate the services rendered by the bank; also to induce the Japanese colonists to engage in various industrial enterprises by giving them financial facilities. The bank has carried out the great work of reforming the monetary system of the Island of Formosa, by establishing the gold standard, and adjusting local and foreign currencies in their confused circulation. As agent of the Hypothec Bank of Japan, the institution under review has granted loans on long terms to induce the development of agriculture and other industries, and as a government bank, in charge of the treasury funds and loans, it has aided the construction of railways, harbour conveniences, water and electric works and so on. The Bank of Taiwan's beneficial influence has also extended into South China and the South Sea Islands, and has helped materially to stabilise financial transactions involved with trade in that large territory.

In international finance the Bank of Taiwan holds a very prominent position, transacting business direct through its London branch at 58 Old Broad Street with large financial institutions interested in Far Eastern affairs, and operating also in the United States, Russia, Manila, and other foreign countries. Some idea of the growth of the bank may be gathered from its increases in capital. The first took place in April, 1910, when the amount was raised to Yen 10,000,000.00, which sum was doubled in October, 1915, at a special meeting of shareholders. Of this large capital Yen 17,500,000.00 is fully paid



BANK OF TAIWAN, LIMITED; MR. TETSUTARO SAKURAI, PRESIDENT—MR. KYOROKU YAMANARI, GENERAL MANAGER—
TOKYO PREMISES OF THE BANK, EIRAKU-CHO, KOJIMACHI-KU



TOKYO PREMISES OF THE HOKKAIDO COLONIZATION BANK, LIMITED

BALANCE SHEET, JUNE 30, 1917, BANK OF TAIWAN

| LIABILITIES | ASSETS |
|---|--|
| Yen | Yen |
| Capital subscribed..... 20,000,000.00 | Cash account: |
| Reserve funds..... 5,080,000.00 | In hand..... 8,770,433.03 |
| Notes in circulation..... 26,841,120.00 | At bankers..... 4,231,221.26 |
| Current accounts, fixed de- | Loans to Government..... 5,696,507.00 |
| posits, etc..... 127,756,124.17 | Bills discounted, loans, ad- |
| Deposits in trust..... 17,252,711.06 | vances and other sums due |
| Bills payable, acceptances and | to the bank..... 252,802,591.65 |
| other sums due by the bank 107,911,040.09 | Government bonds, etc..... 16,312,404.07 |
| Balance brought forward from | Bullion and foreign money... 13,424,710.72 |
| last account..... 273,563.09 | Capital uncalled..... 2,519,550.00 |
| Net profit for the past half- | Bank's premises, properties, |
| year..... 1,180,729.56 | furniture, etc..... 2,537,870.24 |
| <i>Total</i>.....Yen 306,295,287.97 | <i>Total</i>.....Yen 306,295,287.97 |

PROFIT AND LOSS ACCOUNT

| DR. | CR. |
|---|-------------------------------------|
| Yen | Yen |
| Current expenses, interests, etc. 12,164,715.24 | Balance brought forward from |
| Reserve funds..... 300,000.00 | last account..... 273,563.09 |
| Bonus..... 60,000.00 | Amount of gross profits for the |
| Dividend (10% per an.)..... 768,000.00 | half-year ending June 30, |
| Balance carried forward to next | 1917..... 13,345,444.80 |
| account..... 326,292.65 | |
| <i>Total</i>.....Yen 13,619,007.89 | <i>Total</i>.....Yen 13,619,007.89 |

up, and the reserves amount to Yen 5,380,000.00. The principal officers of the Bank of Taiwan, Ltd., are: President, Mr. Tetsutaro Sakurai; Vice-President, Mr. Kojiro Nakagawa; and Directors, Messrs. Iyetoshi Sada, Kyoroku Yamanari, and Shingo Minami. Above are the financial statements presented at the thirty-sixth half-yearly meeting of shareholders held at Tokyo on September 1, 1917, for the period ending June 30, 1917.

THE HOKKAIDO COLONIZATION BANK, LIMITED

This bank, known as the Hokkaido Takushoku Ginko, is one of the special banks of Japan founded under Government direction for the specific purpose of promoting the development and colonization of Hokkaido by supplying the necessary capital to enterprise and immigration. Its operations began in April, 1900, at Sapporo, Hokkaido, with a capital of Yen 3,000,000 which has since been increased and now stands at Yen 10,000,000 of which Yen 6,250,000 is paid up. At its inception the bank devoted its energy only to transacting local banking business, but

since then its scope of operations has been considerably enlarged and it is now doing a general business throughout Japan and abroad. There are seven branches in Hokkaido, three in Karafuto, and one in Tokyo. Business is transacted with clients in all parts of the world, especially in London, where the Hokkaido Bank has an agency established at the time of the issue of colonization debentures amounting to Yen 5,000,000, which were placed in London. Altogether colonization debentures of a total of Yen 21,000,000 have been issued. The reserve funds of the bank aggregate Yen 1,768,700. Mr. R. Mizukoshi is the President of the Hokkaido Colonization Bank and the other directors are Messrs. U. Akabana, W. Majima, and M. Seki. The Auditors are Baron K. Okura and Messrs. T. Matsumoto and I. Nagata. The head office is at No. 7 Nishi e-chome, Odori, Sapporo.

In the thirty-fifth half-yearly statement for the period ending June 30, 1917, it was shown that the net profit for the half-year were Yen 325,481.35, which with Yen 98,567.26, made the gross sum available for distribution Yen 424,048.62. This was disposed of as follows: To general reserves Yen 34,000; to reserve for equalisation of dividends, Yen 8,500; to special reserve Yen 22,000; dividend at 9 per cent per annum, Yen 239,000; bonus to directors and auditors, Yen 21,000; carried forward, Yen 99,548.62. The balance sheet for the term ending June 30, 1917, was as follows:

| ASSETS | LIABILITIES |
|---|---|
| Yen | Yen |
| Unpaid capital..... 3,759,937.50 | Capital..... 10,000,000.00 |
| Loans on immovable properties 21,566,063.77 | Reserve against losses..... 1,154,000.00 |
| 1,484,481.66 | Reserve for dividend equali- |
| Loans on movable properties... 36,936.43 | sation..... 325,200.00 |
| Bills discounted..... 9,754,060.14 | Special reserve..... 289,500.00 |
| Documentary draft..... 1,035,637.51 | Unclaimed dividend..... 15,410.44 |
| Overdrafts..... 513,167.64 | Amount of debentures issued.. 20,728,090.00 |
| Deposits at call..... 5,300,980.45 | Deposits..... 16,090,679.01 |
| National loan bonds..... 3,487,384.40 | Drafts payable..... 310,779.50 |
| Shares and debentures..... 302,000.00 | Balances due to other banks.. 695,776.03 |
| Difference on subscription price | Guarantee for loans in account |
| of debentures..... 746,000.00 | with the Hypothec Bank of |
| Fund for payments at agencies 63,724.08 | Japan..... 151,964.54 |
| Balances due by other banks.. 476,476.15 | Balance with the Hypothec |
| Bank premises and furnitures.. 699,780.86 | Bank of Japan..... 2,820.92 |
| Loans in account with the | Balance with the Industrial |
| Hypothec Bank of Japan.. 151,964.54 | Bank of Japan..... 611.76 |
| Loans in Saghalien branches.. 208,191.65 | Provisionary receipt..... 900,720.85 |
| Immovable properties in posses- | Trust deposits..... 1,815.40 |
| sion..... 236,643.62 | Brought forward..... 98,567.26 |
| Provisionary payments..... 2,837.12 | Net profit for the half-year... 325,481.35 |
| Reserve fund for new building 11,258.25 | |
| Cash on hand..... 1,262,891.29 | <i>Total</i>.....Yen 51,091,417.06 |
| <i>Total</i>.....Yen 51,091,417.06 | |



HEAD OFFICE, TOKYO, OF NIPPON KWANGYO GINKO (HYPOTHEC BANK OF JAPAN, LIMITED)

NIPPON KWANGYO GINKO
(THE HYPOTHEC BANK OF JAPAN,
LIMITED)

(1, Ichome, Uchiyamashita-cho, Kojimachi-ku, Tokyo.)

THE Hypothec Bank of Japan is a joint-stock company with a capital of Yen 40,000,000 (£4,000,000), divided into 200,000 shares of Yen 200 (£20) each. This amount may, subject to the approval of the Government, be increased by the decision of a general meeting of shareholders. The bank is incorporated for a period of one hundred years from the date of its establishment, 1897; but the said term may, subject to the sanction of the Minister of Finance, be extended by the decision of a general meeting of shareholders. The Governor and the Vice-Governor are appointed by the Government for a term of five years from among shareholders owning at least one hundred shares. The Directors are appointed by the Government for a term of five years from among shareholders owning at least fifty shares, who have been elected as candidates at a general meeting of shareholders. The Auditors are elected at a general meeting of shareholders for a term of three years from among shareholders owning at least thirty shares. The Governor, the Vice-Governor, and the Directors are not allowed to engage in any other business or trade under any circumstances whatsoever, although exceptions to this rule may be made by the special permission of the Minister of Finance.

The business of the bank is as follows:

(1) To make loans, on the security of immovable property, redeemable in annual installments within a period of fifty years;

(2) To make loans, on the security of immovable property, or fishery right, redeemable at a fixed time within a period of five years;

(3) To make loans, redeemable in annual installments, on the security of loans redeemable in annual installments made by Agricultural and Industrial Bank, together with

the mortgages connected therewith; (4) To make loans without security to prefectures, countries, cities, towns, villages, and other public bodies organised by law; (5) To take up agricultural and industrial debentures; (6) To make loans without security to Arable Land Readjustment Associations conforming with the Law for the Readjustment of Arable Lands, or to persons carrying out such readjustment on their joint responsibility, industrial associations, fishery associations, forestry associations, livestock associations or unions thereof; (7) To receive deposits and to accept for safe deposit gold and silver bullion and negotiable instruments, provided, however, that the total amount of the former deposits may not exceed the paid up capital; (8) To make loans, on the security of "the mass of property" belonging to factories or light railways, redeemable in annual installments within a period of fifty years, or redeemable at a fixed time within a period of five years; (9) To engage in other kinds of business prescribed for this bank by law.

In order to meet the demand, the bank is authorised by the said law to issue special debentures (Kwangyo-Saiken), with or without premiums, up to an amount not exceeding ten times its paid-up capital, and they are redeemed by means of semi-annual drawings within a period of fifty years. The debentures

| LIABILITIES | | ASSETS | |
|---|--------------------|--|--------------------|
| | Yen | | Yen |
| Capital..... | 40,000,000.00 | Capital unpaid..... | 15,000,000.00 |
| Loss, equalisation and special reserve..... | 6,444,400.00 | Loans redeemable in annual installments..... | 74,935,378.95 |
| Dividends unclaimed..... | 9,885.28 | Loans guaranteed by agricultural and industrial banks redeemable in annual installments or at a fixed time.... | 143,046,093.78 |
| Total issue of debentures..... | 210,837,680.00 | Loans redeemable at a fixed time..... | 4,715,331.32 |
| Total issue of savings debentures..... | 16,782,385.00 | Agricultural and industrial bank debentures..... | 468,383.50 |
| Deposits and current accounts | 6,602,852.01 | Bills discounted..... | 5,343,105.00 |
| Due to other banks..... | 6,010.70 | Deposits at the Deposit Bureau of the Department of Finance..... | 20,028,595.00 |
| Unclaimed interest and premiums of debentures..... | 3,797,228.60 | Deposits at other banks and postal savings offices..... | 11,057,983.11 |
| Unclaimed interest and premiums of savings debentures | 671,582.66 | National bonds..... | 5,092,020.00 |
| Fund for the payment of premiums of debentures..... | 988,269.55 | Shares and debentures..... | 94,860.00 |
| Fund for the redemption of savings debentures..... | 125,189.00 | Foreign bonds..... | 6,726,799.69 |
| Provisional receipts..... | 282,989.74 | Difference between face and issue value of debentures.. | 507,111.00 |
| Amount brought forward from the last account..... | 145,555.13 | Agencies accounts..... | 1,263,777.81 |
| Profits..... | 1,940,143.29 | Bank buildings and fixtures.. | 50,151.00 |
| Total..... | Yen 288,634,170.97 | Immovable properties..... | 150,770.02 |
| | | Provisional payments..... | 935,044.53 |
| | | Cash on hand..... | 118,766.24 |
| | | Total..... | Yen 288,634,170.97 |



PREMISES OF THE TOKYO PREFECTURAL HYPOTHEC BANK, LIMITED

with premiums, this being the exclusive privilege of the bank, are at present of the value of Yen 10 (£1) each, and carry five per cent interest, while those without premiums are issued in denominations of Yen 50 (£5), Yen 100 (£10), Yen 500 (£50), Yen 1,000 (£100), Yen 5,000 (£500), Yen 10,000 (£1,000) each, carrying interest at the rate of from five to seven per cent per annum.

The Minister of Finance exercises a general control over the business operations of the bank, and may suspend such operations as he deems contrary to laws or ordinances, or to the articles of association of the bank, or injurious to the public interest. The bank must obtain the sanction of the Minister of Finance in making alterations in its articles of association, and in fixing the rate of dividend to be distributed among its shareholders. The Minister of Finance appoints special government officials to supervise the business operations of the bank.

The financial statement of the bank, as at December 31, 1916, appears on the second preceding page (115).

The following are the officers of the Nippon Kwangyo Ginko:

Governor, Mr. Gentaro Shimura; Vice-Governor, Mr. Usaburo Yanagiya; Directors, Messrs. Naonosuke Kawakami, Junzo Kawamura, and Keisaburo Kato; Auditors, Messrs. Kwanzo Matsuo, Kahei Otani, and Katsuoki Mizuno.

THE TOKYO PREFECTURAL HYPOTHEC BANK, LIMITED

This bank came into existence in 1888 in accordance with the Law Relating to the Agricultural and Industrial Banks. As its name suggests it was established to meet the requirements of Tokyo Prefecture, and it may well claim to have done a great deal in the direction of promoting agriculture and industry generally in this district. The Tokyo Prefectural Hypothec Bank, Ltd., deals principally in advances to farmers and industrial people, supplying funds at low interest and on long credit, on the security of farms, home lots, buildings, and so forth. The bank is also authorised to provide funds for the self-governing authorities of counties,

cities, towns, or villages, to enable them to carry out necessary works and improvements that will lead to a greater expansion of industry. Loans are repaid under the system in operation in yearly instalments, comprising a portion of the principal and interest, so that the liquidation of liabilities presses very lightly on those who derive so much benefit from the system.

The capital provided for the loans made by the bank is raised by debentures, the bank being authorised to raise up to five times the amount of its paid-up capital. Some idea of the development of this institution may be gathered from the facts that at its inception the authorised capital was only Yen 350,000, while to-day it is Yen 4,000,000; the amount of debentures issued totals Yen 9,300,000, and loans of Yen 15,000,000 in the aggregate have been made. Since the original charter was issued the Tokyo Prefectural Hypothec Bank has been authorised to receive deposits, give short-date loans, and conduct general discount and banking business. The assets of the Tokyo Prefectural Hypothec Bank total Yen 21,715,000, and its reserves amount



PREMISES OF THE YOKOHAMA SEVENTY-FOURTH BANK, LIMITED

to Yen 1,543,000. Mr. S. Saito is the President, and the managing director is Mr. T. Hoshikawa. The bank is located at No. 1. Yurakucho, Nichome, Kojimachi-ku, Tokyo.

THE YOKOHAMA SEVENTY-FOURTH BANK, LIMITED

THE Yokohama Seventy-fourth Bank, Limited, or the Yokohama Shichi-Ju-Shi Ginko, is a popular institution in the port, and has won a full measure of public confidence and support by its record as a sound and conservatively managed concern. This bank operates almost exclusively in the Yokohama district, conducting a general business, and facilitating in a marked degree the large volume of trade which annually passes through Yokohama. The Board of Directors comprises a number of well known business men and consists of the following: Mr. K. Otani, President; Mr. K. Mori, Managing Director; Mr. S. Mogi, Mr. C. Minoda, and Mr. R. Nagai, Directors. The Auditors are Messrs. R. Okano, J. Takahashi, and S. Minoda. Branches of the bank are maintained at Moto-machi, Noge Ishegachicho and Kanagawa, Yokohama, and at Honcho, Nihonbashi-ku, Tokyo. The capital of the Yokohama Seventy-fourth Bank, Ltd., is Yen 2,000,000 of which Yen 1,400,000 has been paid up. Out of profits a handsome reserve fund of Yen 810,000 has been established. The financial returns of the bank showed the following position on June 30, 1917:

| LIABILITIES | | ASSETS | |
|--|--------------------------|--|--------------------------|
| | Yen | | Yen |
| Capital..... | 2,000,000.00 | Uncalled capital..... | 600,000.00 |
| Reserve fund..... | 810,000.00 | Bills discounted, loans and advances..... | 6,589,385.89 |
| Amounts due on deposits..... | 7,454,194.64 | Due from other banks..... | 96,724.03 |
| Due to other banks..... | 1,305,819.23 | Liabilities of customers for acceptances per contra..... | 41,897.75 |
| Acceptances for customers.... | 41,897.75 | Deposit receipts..... | 1,479,343.98 |
| Rebate of interest on bills not due..... | 55,772.07 | Stock, bonds, and securities... | 2,370,096.21 |
| Balance brought forward from previous period and net profit for half-year..... | 104,415.77 | Sundry accounts..... | 8,171.37 |
| | | Bank premises and furniture.. | 157,991.33 |
| | | Cash in hand..... | 428,488.90 |
| <i>Total.....</i> | <i>Yen 11,772,099.46</i> | <i>Total.....</i> | <i>Yen 11,772,099.46</i> |

The Profit and Loss Account showed the following items: Transferred to reserve fund, 15,000 yen; bonus to staff, 6,412 yen; dividend for the half-year at the rate of seven per cent per annum, 49,000 yen; amount carried forward, 34,003.77 yen.

The head office of the Yokohama Seventy-fourth Bank, Ltd., is at Minami, Naka-dori, Yokohama.



DRUM BRIDGE, KAMEIDO, TOKYO

THE YASUDA BANK

THE Yasuda Bank is one of the oldest in Japan, and it is one of the few that survived the early and troublous times of banking in the Empire. To-day it commands considerable influence, and the substantial nature of its business and the soundness of its methods are known and appreciated not only in Japan but abroad. That this is so is due to the business acumen of Mr. Zenjiro Yasuda, the founder of the bank. He was born at Toyama, Tetchu Province, in Octo-

mercial relations with the outer world, that there would be a vast development in money exchange. He organised the Yasuda Shoten in March, 1864, to carry on the exchange business, and this was in fact the beginning of the Yasuda Bank. The Yasuda Shoten, under the direction of its young manager, was at once successful, and its development was such as to warrant its reorganisation under the company laws in January, 1880, when it became the Yasuda Ginko with a capital of Yen 200,000. In July, 1887, the capital was further increased to Yen 1,000,000. When the Commercial Law and Bank Act came into force in July, 1893, the Yasuda Bank was registered as a joint-stock company, and increased its capital yet again in July, 1900, to Yen 2,000,000. There were several subsequent changes in organisation and status, and finally the bank became a regular limited liability company in January, 1912, with a capital of Yen 10,000,000.

The second vital factor in the growth of the Yasuda Bank has been the service rendered to the institution by Mr. Zenzaburo Yasuda. This gentleman is now the head of the family. He was born in October, 1870. Upon graduation in 1892 from Tokyo Imperial University, he entered the Yasuda Bank to succeed Mr. Zenjiro Yasuda, and soon demonstrated his capacity for carrying on the work so ably started. Mr. Zenzaburo Yasuda brought new and vigorous ideas of business into the management of the bank. In the years 1901 and 1902 he journeyed through America and Europe, making a close study of the various financial systems, and applying to his own institution the best results of his investigations. In 1909 Mr. Yasuda succeeded to the headship of his family, which includes many strikingly successful and brilliant business men such as the Messrs. Zennosuke, Zengoro, Yoshio, Zenshiro, Yoshiye, Zenzuke, Zenya, Zenbei, and Zenzo Yasuda, all of whom are distinguished alike for their business success and their probity, tact, and enterprise.

The Yasuda Bank is situated at Kofunacho, Nihonbashi-ku, Tokyo. Branches are being opened every year. They now extend to Fukushima, Utsunomiya, Akita, Aomori, Sendai, Wakamatsu Morioka, Nakamura, Koriyama, Yokohira, Yonezawa, Honjo, and Sakata. With such a wide spread of activities it is not surprising that the Yasuda Bank is in a most flourishing condition. The officers of the bank are as follows: President, Mr. Zennosuke Yasuda; Directors, Messrs. Zenshiro and Zengoro Yasuda; Auditor, Mr. Yoshio Yasuda; Chief of Business Department, Mr. Yasutaro Sudzuki; Chief of General Business Department, Mr. J. Kondo. Besides these officers Mr. Zenzaburo Yasuda

ber, his father being Zenyetsu Yasuda, one of the warriors of the Mayeda family. At the age of eighteen Mr. Yasuda went to Tokyo, then known as Yedo, in the first year of Ansei (1854). He studied in the capital for some years, and saved some money, always with the idea of investment in a suitable business. He realised, with the influx of foreigners and the spread of Japan's com-



THE HEAD OFFICE OF THE YASUDA BANK, TOKYO—PREMISES OF DAISAN GINKO (THIRD BANK, LIMITED), TOKYO

is Superintendent, and Mr. Zenjiro Yasuda is general business adviser. Such close relationship between members of the one family in the common interests of all, which are involved in the Yasuda Bank, is one of the secrets of its great success. According to the report and balance sheet submitted up to June 30, 1917, the net profit of the Yasuda Bank was Yen 670,000, and the amount carried forward after the dividend had been paid was the large sum of Yen 340,000 which showed an increase of Yen 140,000 over the amount carried forward the previous year. The balance sheet to June 30, 1917, is shown in the accompanying table.

THE DAISAN GINKO (THE THIRD BANK, LIMITED)

PRIOR to the passing of the National Bank Act in 1872, none of the financial houses applied the name of "Ginko" to their institutions. The act was revised in 1876 and it was at this time that Mr. Zenjiro Yasuda organised the Daisan Ginko, or Third Bank, with a capital of Yen 200,000. Two years later the capital was increased to Yen 300,000, and upon the amalgamation with the Forty-fourth Bank in 1882, the amount of capital was raised to Yen 1,000,000. On the expiration of the national bank business in 1896 the status of the Third Bank was changed to that of a joint-stock company and the capital was doubled. Further increases in capital followed upon the amalgamation with the Eighty-second Bank in 1898; again in July, 1910, when it was raised to Yen 5,000,000 and finally in May, 1917, to Yen 10,000,000. The Third Bank has four branches in the city of Osaka, and thirteen other branches scattered throughout Japan in such cities as Yokohama, Hakodate, Tottori, Matsuyae, Yonago, Sakai, Imaichi, Kurayishi, and Nishiwaki. It was also recently decided to install a further branch at Osaka. The Third Bank has had a remarkable history of expansion and of continued success. For many years it has paid an annual dividend of twelve per cent. The last balance sheet presented up to the end of April, 1917, showed the total deposits to be Yen 74,058,505. The capital is as stated above, Yen 10,000,000, of which half is paid up, and the reserve fund amounts to Yen 3,450,000.

THE TEIYU BANK, LIMITED

IN 1897 the Fifteenth National Bank at the expiration of its business term distributed amongst the shareholders a large amount of profit and reserves as the result of a very successful term. Prince Iwakura, Prince Shimazu, Prince Mori, Marquis Mayeda, Marquis Asano, Count Tsugaru, Count Ii, and some others, who were amongst the prin-

cipal shareholders of the Fifteenth Bank, pooled their dividends from that institution, and with the fund thus raised they started the Teiyu Bank under the joint-stock company laws, with a capital of Yen 2,000,000. As the founders were nearly all peers, it

naturally followed that the new bank had a strong position in public confidence, and its business became very brisk. For fourteen years the Teiyu Bank, Limited, was conducted as an entirely separate institution, although it was commonly accepted as a

| ASSETS | | LIABILITIES | |
|-------------------------------|----------------------|---|----------------------|
| | Yen | | Yen |
| Loan and temporary overdrafts | 41,847,252.70 | Capital | 10,000,000.00 |
| Call loans | 5,900,000.00 | Reserve funds | 3,020,000.00 |
| Discount bills, etc. | 8,365,960.00 | Deposits | 72,794,842.38 |
| Loans to other institutions | 1,022,450.13 | Loans from other institutions | 2,637,635.13 |
| Land, building, etc. | 196,375.43 | Interests unclaimed and discount rate unexpired | 716,763.23 |
| Real estate | 30,443.18 | Remittance bills | 707,190.95 |
| Bills and bullion | 27,057,604.20 | Profit for fiscal term | 674,877.17 |
| Cash in hand | 6,342,808.04 | Balance brought forward | 211,584.82 |
| <i>Total</i> | <i>90,762,893.68</i> | <i>Total</i> | <i>90,762,893.68</i> |



THE HANDSOME NEW PREMISES OF THE TEIYU BANK, LIMITED, TOKYO

branch of the Fifteenth Bank. In 1911 its stocks were purchased by the Fifteenth Bank, and the capital was increased to Yen 5,000,000, while Mr. M. Naruse, Vice-President of the Fifteenth Bank, became the President of the Teiyu, and Mr. S. Ogawa, from the same institution, was appointed Managing Director of the new company. The solid foundation of the Teiyu Bank has resulted in a highly successful career, and it is to-day at the height of its prosperity. The Directorates of the Fifteenth and the Teiyu Banks are practically the same, the board of the latter being: President, Mr. M. Naruse; Directors, Messrs. K. Sonoda, Viscount Kano, Viscount Aoyama, and Managing Director, S. Ogawa. The Auditors are Messrs. S. Mayeda, Y. Sato, and T. Imai. The head office of the Teiyu Bank, Ltd., is at No. 13 Sojurocho, Kyobashi-ku, Tokyo, and there are branches at Gofukuncho, Nihonbashi-ku and Tomiyoshicho, Fukagawa-ku, Tokyo.

THE ONE HUNDREDTH BANK, LIMITED

The Dai Hyaku Ginko, or One Hundredth Bank, Ltd., of Tokyo, was originally founded under government charter in 1878, in conformance with the laws governing national banks. In those days the pensions of the old daimyo and samurai were granted in bonds and it was their custom to mortgage these bonds and get special rights to issue paper money. For this purpose therefore numerous banks of this class were established, not only in the principal cities, but also in every principal town or port. About 150 such banks were formed, and the One Hundredth Bank was one of them, being organised under the auspices of Marquis Ikeda, the Chief of the Tottori Prefecture and the samurai of that prefecture. The capital was Yen 200,000 and the bank was known as Dai Hyaku Kokuritsu Ginko, or the One Hundredth National Bank. At the same time the Dai Hachiju-ni Kokuritsu Ginko (the Eighty-second National Bank) was opened in Tottori Prefecture with a capital of Yen 200,000. The rate of special privilege granted for the issue of paper currency was eight-tenths of a bank's capital, and the amount of paper money issued by mortgaging public loan bonds to the Government was Yen 160,000. The founders of the One Hundredth Bank were Messrs. Rokuro Hara, Saneatsu Kawasaki, Tadami Yoshida, Zenjiro Yasuda, Kageyoshi Kawada, Hisashi Miyabe, Chohei Takasaki, and Yoshizo Enjoji.

In May, 1883, when the revision of the laws of the national banks took place, and their old functions were suspended, the One Hundredth Bank continued in operation as an ordinary bank, and has ever since held a

prominent place in public esteem, giving facilities to merchants and in every way endeavouring to hasten the development of the resources of Japan and to promote exports. The old paper money issued by the bank was all paid off at the expiration of the business term in August, 1898. The One

Hundredth Bank conducts a general business throughout Japan and her dependencies, as well as abroad. In addition, it handles trust company business and maintains a safe deposit department at the Yokohama branch. The head office of the bank is at Awomonocho, Tokyo. Branches are maintained at

| RESOURCES | | LIABILITIES | |
|---------------------------------|---------------|-------------------------------------|---------------|
| | Yen | Yen | Yen |
| Cash and bullion in hand..... | 6,374,697.70 | Capital: | |
| Cash in Bank of Japan..... | 447,869.85 | Subscribed..... | 10,000,000.00 |
| <i>Total</i> | 6,822,567.55 | Paid up..... | 6,000,000.00 |
| Money at call..... | 410,000.00 | Reserve fund..... | 4,090,000.00 |
| Investments: | | Demand deposits..... | 30,687,923.98 |
| Securities of Japanese Gov- | | Time deposits, certificates..... | 37,379,507.83 |
| ernment..... | 4,880,905.00 | Acceptances and guarantees.... | 7,458,502.93 |
| Foreign governments treas- | | Liabilities on foreign bills sold.. | 329,630.99 |
| ury bills..... | 2,406,744.47 | Due to Bank of Japan..... | 1,900,000.00 |
| Japanese corporation bonds.. | 54,600.00 | Due to other banks..... | 1,885,877.81 |
| Japanese corporation stocks.. | 12,500.00 | Transit account..... | 357,610.97 |
| <i>Total</i> | 7,764,749.47 | Unclaimed dividends, interest | |
| Bills discounted..... | 25,472,989.26 | due, rebates, etc..... | 524,443.31 |
| Loans and overdrafts..... | 36,717,455.13 | Profit and loss: | |
| Foreign bills purchased..... | 3,992,797.80 | Balance brought | |
| Liabilities of customers on ac- | | forward..... | 46,798.74 |
| ceptances and guarantees as | | Net profit for the | |
| per contra..... | 7,458,502.93 | half-year | 447,786.55 |
| Due from other banks..... | 1,976,326.39 | | 494,585.29 |
| Bank premises and real estates | 890,859.57 | <i>Total</i> | 91,108,083.11 |
| Suspense accounts..... | 11,835.01 | | |
| <i>Total</i> | 91,108,083.11 | | |



PREMISES OF THE TOKYO BANK, LIMITED



A COMMON TYPE OF RIVER BOAT

No. 1 Torihatogochō, Nihonbashi, and No. 10 Ginza, Tokyo, as well as at Yokohama, Osaka, Kyoto, and Tottori. The London correspondents are Messrs. Brown, Shipley & Company, and in New York, Messrs. Brown Brothers & Company. Mr. K. Ikeda is the President of the One Hundredth Bank, Ltd., and Mr. S. Choh, the Managing Director. Some idea of the growth of this institution may be gathered from the fact that its capital to-day is Yen 10,000,000, of which Yen 6,000,000 is paid up, and the reserves amount to Yen 4,120,000. The balance sheet as at June 30, 1917, is given on the preceding page.

THE TOKYO BANK, LIMITED

THE Kabushiki Kaisha Tokyo Ginko, or Tokyo Bank, Ltd., is one of the special trade banks of Japan, having been established to give facilities to the cotton and dry-goods merchants, who have derived a great deal of benefit from its operations. This bank was founded in 1896 by the late Mr. Ginjiro Kobayashi, with a capital of Yen 1,000,000, and it has been highly successful, its financial position to-day being a particularly strong one, which has warranted the directors in extending the operations in other directions than those in which the institution has exclusively worked in the past. The Tokyo Bank is now working as a deposit bank, transacting a general business, and meeting with all success. There are branches at Hongo, Kanda, Fukagawa, and Koishikawa in the metropolitan area of Tokyo. The head office is at No. 10 Tadokorocho, Nihonbashi-ku, Tokyo. A staff of about one hundred is employed in the head office and branches. Following are the officers of the Tokyo Bank: President, Mr. Tabei Mayekawa; Vice-Presidents, Messrs. M. Aizawa and S. Mine-mura; General Manager, Mr. Yujiro Anraku; Manager of Hongo Branch, Mr. M. Kato; Manager of Kanda Branch, Mr. M. Kawabe;

Manager of Fukagawa Branch, Mr. Y. Watanabe; Manager of Koishikawa Branch, Mr. K. Sugimoto. (See illustration on preceding page.)

THE MORIMURA BANK

THIS well known institution in financial and banking circles of Japan was founded in 1897 by Baron I. Morimura, a millionaire famous throughout the Empire for his important business interests which he directs with conspicuous ability. Baron Morimura is the Senior Partner of the bank. The President is Mr. S. Hirose, and the Manager, Mr. K. Morokudzu. A general banking business is done from the headquarters at No. 3 Tori-Itchome, Nihonbashi-ku, Tokyo. The capital of the Morimura Bank is Yen 500,000, the legal reserve fund, Yen 580,000, and the deposits total Yen 10,000,000.

THE NISHIWAKI BANK, LIMITED

THE Nishiwaki Bank, Ltd., is doing a steadily increasing general business, and stands high in public estimation. It was established eight years ago with a capital of Yen 1,000,000 which is fully paid up, the shares being mainly in the hands of the Nishiwaki family, who are well known in financial circles throughout the Japanese Empire, and are closely identified with several large undertakings. The Board of Directors of the bank is as follows: President, Mr. Seizaburo Nishiwaki; Kenji Nishiwaki, and Otoyō Tomono; Auditors, Messrs. Shimbei Nishiwaki and Shimjiro Nishiwaki. On the following page is the fifteenth half-yearly balance sheet for the period ending June 30, 1917.

The operations of the Nishiwaki Bank for the half-year under review resulted in a



PREMISES OF MORIMURA BANK, TOKYO

| ASSETS | | LIABILITIES | |
|---------------------------------|------------------|------------------------------------|------------------|
| | Yen | | Yen |
| Securities against loans..... | 269,482.24 | Capital..... | 1,000,000.00 |
| Bills against loans..... | 5,000,925.41 | Current deposits..... | 2,380,854.21 |
| Current account overdrafts..... | 27,106.22 | Special current deposits..... | 77,904.86 |
| Bills discounted..... | 1,532,002.53 | Fixed deposits..... | 1,758,104.06 |
| Loans to other firms..... | 27,261.56 | Various other deposits..... | 180,155.12 |
| Deposit money..... | 18,301.38 | Loans from other firms..... | 61,950.88 |
| Public bonds..... | 225,000.00 | Loans..... | 1,590,000.00 |
| Shares..... | 21,088.00 | Discounts not overdue..... | 12,598.22 |
| Properties, furniture, etc..... | 96,939.78 | Net profit for half-year including | |
| Cash on hand..... | 205,183.09 | Yen 331,368.98 brought for- | |
| | | ward..... | 361,722.86 |
| <i>Total</i> | Yen 7,423,290.21 | <i>Total</i> | Yen 7,423,290.21 |

profit of Yen 30,353.88, which together with the amount brought forward from the previous half-year, *viz.*, Yen 331,368.98, was carried forward.

THE TAIYO LIFE INSURANCE COMPANY, LIMITED

THIS is one of the vigorous concerns founded under the auspices of the Nishiwaki family, proprietors of the Nishiwaki Bank, Ltd. Although of comparatively recent origin the Taiyo Life Insurance Co., Ltd., has already won a permanent position in life insurance circles in Japan, and the report for the year 1916 disclosed a healthy state of affairs and the growing popularity of the company. Early in the year general business conditions became active owing to the influences of the war, but as it is well known that life insurance does not respond immediately to improved business conditions, it was some time later in the year before the insurance companies began to feel the benefit of the change. In the case of the Taiyo Life Insurance Co., Ltd., the latter half of 1916 was particularly brisk. Before the close of the period, the new contracts for 1916 exceeded in total those of the previous year, and the number of policies surrendered decreased substantially, showing that the policy-holders were in a much better position to meet their premiums. New insurance written during 1916 totalled in value Yen 3,420,000, or an increase of eight per cent. Contracts surrendered or cancelled totalled in value Yen 2,360,000, a decrease of 57 per cent. The total amount insured with the Taiyo at the end of the year was Yen 14,200,000, or 17 per cent increase over the previous year. Premiums to the total value of Yen 729,000 were received, representing an increase of twelve per cent. During the year insurances totalling Yen 135,000 were paid (increase $6\frac{7}{10}$ per cent); money returned on surrendered policies was Yen 39,000, or a decrease of 41 per cent, and business

expenses totalled Yen 248,000, being an increase of $2\frac{3}{10}$ per cent over the previous year. The reserves of the company were increased by 29 per cent, and now stand at Yen 1,989,000, and the total assets are Yen 2,228,000, or an increase of 21 per cent.

The Taiyo Insurance Co., Ltd., has its head office at No. 12, 2 Chome, Minami-Demmacho, Kyobashi-ku, Tokyo. There are eight branch offices, which are located in Tokyo, Osaka, Nagoya, Sendai, Fukuoka, Kanagawa, Hiroshima, and Kyoto. At the end of 1916 the company had 1,503 agencies spread all over the Japanese Empire. Following are the officers of the Taiyo Life Insurance Co., Ltd.: President, Mr. Seizaburo Nishiwaki; Managing Director, Mr. B. Shimidzu; Directors, Messrs. Kenji Nishiwaki and O. Tomono; Auditors, Messrs. Shinjiro Nishiwaki and K. Shibata.

THE KOIKE BANK, LIMITED, TOKYO

THIS institution is directed and controlled by Mr. Kunizo Koike, a prominent financier, industrial organiser, and general business man of wide repute. The bank was originally founded in 1888 as an institution for the financing of the wool-dealing interests in Tokyo. It was then known as the Shoyei Ginko. Business was transacted along sound lines among a restricted *clientele* of solid business men, and the bank developed very strongly. In May, 1911, Mr. Koike purchased the bank, and in 1917 its title was altered to the Koike Bank.

Mr. Koike's record as a business man is an interesting one. He was born in Kofu, Yamanashi Prefecture, in 1866. When young he was in the employment of Mr. Ippei Wakao and engaged in raw silk, mining, and banking businesses. After seventeen years of all-round commercial experience he left the service of Mr. Wakao and proceeded to Tokyo. There, in April, 1897, he commenced his business as a broker on the Yokyo Stock Exchange, and was soon appointed a

member of the Committee of the Brokers' Association.

Later on he was elected chairman of that body and also a member of the Tokyo Chamber of Commerce. In April, 1907, he established the Koike Joint Stock Company, and was engaged solely in the sale and purchase of stocks, bonds, and in general investments. His effort in the introduction to Japan of foreign capital by coöperating with British, American, and French financiers soon made his name well known throughout Japan and abroad. In August, 1909, Mr. Koike was among the body of prominent Japanese business men which was organised to visit the United States for the purpose of promoting business relations between the two countries. In 1910, when the Katsura Government had issued the four per cent public loan, he took a prominent part in its flotation, and raised a large amount of money, demonstrating once more his financial influence. Since then his investment business has been on a very large scale, and he has long been recognised as a leader in the field of high finance.

On April 15, 1917, which date is recorded as twenty years after his first connection with the stock business, he retired from the membership of the Tokyo Stock Exchange, and at the same time the Koike Joint Stock Company was dissolved. Since that time he has devoted his energy entirely to the business of the Koike Bank which business is solely to underwrite national loans, float local bonds, and issue debentures on behalf of municipalities, public corporations, etc. Thus, among his recent operations, for instance, are a large loan for the city of Tokyo, and the flotations of several industrial issues, amounting in the aggregate to some tens of millions of yen, and for further extension in this line of business Mr. Koike will exert all his force.

Apart from his financial business, Mr. Koike's career in industry is also a prominent one. In November, 1915, he established the Japan Chemical Pulp Co., Ltd., in Saghalien, northern extreme of Japan, the exploitation of which island has been so long neglected. The company's goods made their first appearance in the market in May, 1917, and at once acquired a reputation for the excellence of their quality. The product is largely sold on the local market and is also exported to India and elsewhere. The field of the company's activity covers forestry, mining, and agriculture, and it is largely contributing to the colonisation of that island.

EDITOR'S NOTE:—Details of other important Banking and Financial Institutions will be found in connection with the cities in which they are located.



PREMISES OF TAIYO LIFE INSURANCE COMPANY, LIMITED—BUILDING OCCUPIED BY THE NISHIWAKI BANK, LIMITED



TOKYO STOCK EXCHANGE

EXCHANGES

THE TOKYO STOCK EXCHANGE

THE Tokyo Stock Exchange, which was founded on May 15, 1878, came into existence practically under the auspices of the Imperial Government, and to-day still retains its official status, though, of course, it is not in any way a government-controlled institution. Early in the Meiji era it was recognised that such an institution was a necessity. Japan was then just developing its resources, and entering upon foreign trade. Government loans were being issued, companies of various kinds were being floated, and the absence of a central clearing house to regulate the trade in securities was badly felt. Accordingly in October, 1874, the Government issued an Ordinance No. 107 providing for the establishment of stock exchanges, and inducements were offered for the starting of such institutions in Tokyo and Osaka. In the previous year a large number of national bonds had been issued and it was particularly desired that there should be a medium through which these could be smoothly circulated, under the rules and conditions which obtain on the London Stock Exchange. The project of a stock exchange for Tokyo was

taken up by a number of prominent business men, and their ideas were submitted to the Government for approval under the law referred to. It is interesting to recall the names of the men who originally promoted the Tokyo Stock Exchange, the first to be established in Japan. They were, Messrs. Riozo Fukagawa, Eiichi Shibusawa, Yonosuke Mitsui, Takenosuke Mitsui, Takashi Masuda, Risuke Minomura, Shinobu Komuro, Akira Komatsu, Genichiro Fukuchi, and Kisaku Shibusawa. The Government approved to the plan submitted by these gentlemen, whose names are famous in Japan's commercial history, and on June 3, 1878, the Tokyo Stock Exchange began operations. Meanwhile it will be of interest to show the development of official ideas regarding the control of stock exchanges in Japan.

In December, 1892, regulations governing exchanges were introduced in the Imperial Diet, and were passed. It was provided that stock exchanges could be of two kinds—those formed of private members, and those constituting a joint-stock company. In the former case no deposit was called for, but in the case of a joint-stock company exchange the Government decreed that one-third of the capital should be lodged as security

for the proper conduct of business. In the private membership exchanges both brokers and members were allowed to transact business, but a joint-stock company exchange must confine its transactions solely to registered brokers, and these latter, though they could make sales and purchases on their own account, were to be held responsible to the Stock Exchange for all business done for their own, or customers' accounts. And to protect itself the Stock Exchange was given a preference right over other creditors with respect to deposit money. It was also provided that the capital of a joint-stock exchange should be not less than 30,000 yen. Private members exchanges were not subject to any restriction as to capital. These regulations were somewhat altered in 1902 when Imperial Ordinance No. 158 prescribed that the capital of a stock exchange should be not less than Yen 100,000, and that unless half of the capital, or in the minimum, Yen 100,000, be paid up, no business could be done. Furthermore the personal securities of brokers and members must be deposited. Such regulations, of course, were drafted to check the tendency of small and irresponsible concerns from springing up and trading on public confidence as regular stock exchanges.



(Left) Mr. K. SUGINO, President of the Yamaichi Goshi Kaisha. (Upper Row, Left to Right) Mr. YOSHIO SASHIDA, Chairman of Board of Directors (Tokyo Rice and Produce Exchange)—Mr. T. NAKANE, Director. (Lower Row, Left to Right) Mr. E. SHINKAI, Director—Mr. C. HIROSE, Director. (Right) Mr. RAIZO KANDA, President of the Momijiya Bank

As a matter of fact the Tokyo Stock Exchange from the date of its inception was a joint-stock concern, and its initial capital was Yen 200,000, far exceeding the legal requirements.

Apart from all government regulation the Tokyo Stock Exchange has its own laws, embraced in the Articles of Association, for the conduct of its business. These have been altered and varied from time to time, as experience required, and to-day it is generally recognised that the institution is exceedingly well governed, and undoubtedly it has the implicit confidence of the Government and of the investing public. Abroad the Tokyo Stock Exchange is rated as on an equality with all the great bourses. Its capital is now Yen 20,000,000. None but licensed brokers can be members of the exchange, and their dealings are subject to rigid control. Before being allowed to operate on the ex-

change they must lodge Yen 50,000 as security. They have also to pay the license fee of Yen 100, and in addition must contribute Yen 1,000 to the guild, or partnership of brokers. Any man may become a member under certain conditions contained in the Articles of Association. All transactions on the exchange are in the name of the broker. Private operations by outside speculators are not recognised, and the broker is held strictly responsible, financially and otherwise, for any trading done in his name on the exchange. In 1917 there were about eighty licensed brokers operating on the Tokyo Stock Exchange.

The Tokyo Stock Exchange is open from 9 to 11.30 A. M. and from 1 to 4 P. M. The margin money to be collected for time bargains is of three kinds: (1) principal margin money, (2) supplementary margin money, and (3) extra margin money. The margin

money is bought and sold on the following basis: in the first category the amount to be paid is not more than one-half of the value of the shares booked; in the second category, one-half of the amount paid for the first. Of the third class not more than three times the amount of the first is paid, and this is to be collected when emergency arises or business is suspended, or when it is considered that there may be serious fluctuations of quotations. This margin money is to be both for buyer's and seller's account. Time bargains are made for Present Month Delivery, Second Month Delivery, and Third Month Delivery.

Some idea of the growth of the transactions on the Tokyo Stock Exchange will be gathered from the following: In the seven months of operations in 1878, the total value of national bonds changing hands was Yen 26,565,400. Sales and purchases of shares

only reached a total of Yen 9,600,000, and there were only 253 transactions. In the following year the operations in national bonds in the first six months exceeded in value the operations of the previous period by over Yen 30,000,000, and there were 2,400 transactions. In the last half-year of 1879 national bonds transactions decreased in value by Yen 23,000,000, but the trading in shares increased tenfold. These figures look small compared with those of to-day, but they indicate how quickly the Tokyo Stock Exchange grew in popular favour when its functions were understood. There have been periods of depression and stagnation in the market, but generally speaking the history of the exchange is one of rapid development and ever increasing share operations. After the Russo-Japanese War, and when the first period of depression following that struggle had passed, a strong revival in the market was witnessed. In 1906 shares began to rise and in the following year the 50-yen shares of the Tokyo Stock Exchange rose to 780 yen, a figure which has never been exceeded. A strong tone has prevailed since 1914, and some very heavy operations have taken place, over a quarter of a million shares sometimes changing hands in one day. In 1916 the number of shares bought and sold in the time bargains on the exchange totalled 31,707,580, valued at Yen 4,066,861,382 and in the first half of 1917 the number handled was 10,801,610, valued at Yen 1,575,276,733. The officers of the Tokyo Stock Exchange are: President, Baron Seinosuke Goh; Vice-President, Mr. Shimpei Tsumoda; Directors, Messrs. K. Eguchi, U. Yamaguchi, T. Mayekawa, and R. Fujiyama.

The Tokyo Stock Exchange is housed in a handsome and substantial building of three stories at Nos. 4 and 6 Kabuto-cho, Nihonbashi-ku. The exchange floor is a capacious mart, covering an area of 1,026 *tsubo*. In addition there is office space of 1,000 *tsubo*. A staff of 221 is employed for the conduct of the building and the control of share-dealing operations. The building is ventilated and kept supplied with purified air by mechanical apparatus electrically driven.

TOKYO RICE AND PRODUCE EXCHANGE

THE rice industry of Japan is of such importance that it would be indeed surprising did there not exist well regulated organisations for the control of the marketing and sale of the product. As a matter of fact such institutions are to be found in all the big centres, and they carry on a very useful work in fixing samples, controlling deliveries, and generally handling a large volume of trade at one central house. Such an institution is the Tokyo Rice and Produce Ex-

change, which is located at No. 2 Kakigaracho Itehome, Nihonbashi-ku, Tokyo. This exchange was originally established in 1876 under the name of the Beisho Kaisho, or meeting place of rice merchants. It was organised by Mr. Ippei Yonekura, and other merchants prominent in the industry. The capital at that time was only Yen 100,000, but this has since been increased to Yen 3,000,000. Furthermore the functions of the exchange have been widely extended, and it now handles the business of the sale and purchase of rice, other grain, salt, fertilisers, cotton and silk thread, cotton cloth and so on. So important has the Tokyo Rice and Produce Exchange become that a branch has had to be established at No. 20 Shinzaimokueho, Nihonbashi-ku. The two buildings are handsome modern structures, admirably adapted for the transaction of a large flow of trade, and convenient in all respects as meeting places for the many hundreds of

merchants interested in the different industries. The head office consists of a three-storied brick building with a basement and large vestibule. The first floor where the open market takes place covers 233 *tsubo*. The second floor is of 185 *tsubo*, and with the third floor of 45 *tsubo* is largely occupied by offices. The basement and sample room is 238 *tsubo* in area. The branch building is three-storied and the total floor space is 75 *tsubo*. In the Tokyo Rice and Produce Exchange the bulk of the transactions are for forward deliveries. There is a staff of sixty-three employees, and the salary bill runs over Yen 60,000 per annum. Following are the principal officers of this important institution: President, Mr. Yoshio Sashida; Directors, Messrs. C. Hirose, E. Shinkai, and T. Nakane; Auditors, Messrs. N. Ikegami, E. Sugihara, and Y. Unyeda. Mr. Shichizo Date is the General Manager of the Exchange. (See illustration, page 95.)



PREMISES OF THE MOMIJIYA BANK

THE MOMIJIYA BANK

THE Momijiya Bank of Tokyo is an offshoot of the famous Momijiya & Co., Ltd., and fulfils an important and special function in financial circles of the capital. To describe the operations of this bank requires that the history of the Momijiya business should be related to some extent. The establishment of the Momijiya dates back to February, 1900. At that time the sale and purchase of public loan bonds was in a rudimentary stage, and even the official quotations of public bonds were in a state of uncertainty. The Momijiya was opened exclusively for cash transactions involving the purchase or sale of public securities, and it began the publication of daily bulletins reporting the actual quotations of public bonds and stocks, as well as financial conditions generally. In this way, the Momijiya became noted as a specialist in this class of business, and there is no doubt its operations were viewed with great public favour, the institution being far ahead of any other concern in keeping the public well advised regarding the markets. It is also equally certain that the Momijiya did a great deal to stabilise and systematise transactions in public bonds. Some of the transactions of the Momijiya have reached very large figures. One such was the handling of Yen 7,000,000 worth of public bonds in 1903. The Momijiya also carried out the flotation of a national loan to the extent of Yen 50,000,000 during the Russo-Japanese War; a wholesale export of the Railway Nationalization Loan Bonds, and the Government Loan Bonds Mark "Ko-go" in 1908-9, and similar huge undertakings involving millions of yen and calling for careful and expert handling of negotiations. The Momijiya was transformed into a joint-stock corporation, with a capital of Yen 1,000,000 in December, 1910, and in the following year the Momijiya Bank was inaugurated with a moderate capital of Yen 1,000,000.

The Momijiya Bank conducts a general banking business, but it has several special features; underwriting and issuing loans for municipalities and industrial companies; conducting financial operations in foreign markets, etc., these special features being the natural result of its association with Momijiya & Co., Ltd. The bank is under the direct control of Mr. Raizo Kanda, but a clear distinction is maintained in respect of the capital and business management of the two institutions, though they operate together along certain lines. Both may well be regarded as indispensable for the benefit of the public at large.

With the object of promoting intimate relations with the capitalists and financiers

of Europe and America, Mr. Kanda, President of the two institutions, made a tour of inspection in 1912, covering England, France, Belgium, and Germany, returning *via* the United States. The result of this visit and association with the leading bankers and capitalists abroad has been to give an impetus to international transactions in bonds and other securities in which Japan is interested. The Momijiya Bank occupies handsome headquarters at 26 Sakamotocho, Nihonbashi-ku, Tokyo, and special correspondents are maintained in London, Paris, Amsterdam, New York, and San Francisco. The General Manager of the bank is Mr. Yoshimi Yokota. Following are the financial statements of the bank for the half-year ended June 30, 1917:

| DR. | CR. |
|---|---|
| Yen | Yen |
| Capital.....1,000,000.00 | Advances current account.....2,097,457.83 |
| Reserve.....400,000.00 | Bills discounted.....1,374,364.35 |
| Deposits.....566,132.17 | Loans to other banks.....111.48 |
| Money at call.....1,970,000.00 | Negotiable instruments.....323,961.44 |
| Loans.....900,000.00 | Loan bonds.....221,440.00 |
| Unpaid interests, etc.....8,503.80 | Loans on lands and buildings...100,000.00 |
| Loan bonds.....201,374.00 | Funds in agencies.....1,140,407.30 |
| Bonds in trust.....121,207.00 | Cash on hand.....10,931.87 |
| Net profit for half-year.....101,457.30 | |
| | 5,268,674.27 |

PROFIT AND LOSS ACCOUNT

| DR. | CR. |
|---------------------------------|---------------------------------------|
| Yen | Yen |
| Reserve fund.....30,000.00 | Net profits for half-year ending |
| Balance carried forward to next | June 30, 1917.....31,402.30 |
| term.....71,457.30 | Balance brought forward.....70,055.00 |
| | 101,457.30 |

YAMAICHI GOSHI KAISHA

IN a separate article reference is made to the operations of Mr. Kunizo Koike, President of the Koike Bank, and to the important work which that gentleman has done in financial circles in Japan. Over twenty years ago Mr. Koike engaged in brokerage business in Tokyo, and held a very prominent position in the Tokyo Stock Exchange. He established the Koike Goshi Kaisha, about ten years ago, and made it one of the leading stock and share brokerage businesses in the

capital. On April 15, 1917, the Koike Goshi Kaisha was formally dissolved on Mr. Koike retiring from brokerage business to take up the active control of the bank which bears his name. The succeeding day the Yamaichi Goshi Kaisha was formed, and by arrangement which had been made at a conference of the principals and staff of the former concern, the new organisation at once took over the business which had been directed by Mr. Koike. On the latter's retirement the organisation was changed somewhat, but all the principal directors and the heads of staffs continued with the new firm. Consequently the Yamaichi Goshi Kaisha may be said to be a continuation of the long established business, and has at its disposal all the experience of the staff which Mr. Koike

gathered around him. Business is conducted in a steady and progressive manner. The firm are licensed brokers of the Tokyo Stock Exchange, and deal in domestic and foreign securities, and undertake the underwriting of government and municipal bonds and debentures, the flotation of share stock, and so forth. The capital of the Yamaichi Goshi Kaisha is Yen 1,000,000 fully paid up, and it is interesting to note that the original founder of the business still retains a large interest in it, and is one of its partners. The



INTERIOR VIEW OF THE COUNTING HOUSE OF YAMAICHI GOSHI KAISHA—THE HEAD OFFICE, KABUTO-CHO, NIHONBASHI-KU, TOKYO

head office of the Yamaichi Goshi Kaisha is at No. 3 Kabuto-cho, Nihonbashi-ku, Tokyo, in the building formerly occupied by the Sumitomo Bank. A staff of about sixty is employed to transact the large volume of business which passes through the hands of the firm. The Managing Director is Mr. Kisei Sugino. Partners and Directors are Messrs. H. Arita, N. Hasegawa, S. Miyo, K. Kusunoki, and Partners and Auditors, Messrs. S. Asakawa and D. Hiraoka. There are fifteen other partners, among whom are Mr. K. Koike, who holds stock to the value of Yen 387,000, and Mr. J. Watanabe. The cable address of Yamaichi & Company is "Montoneco," Tokyo.

FOREIGN BANKS

HONGKONG & SHANGHAI BANKING CORPORATION

A GENERAL history of this well known institution though more than warranted from the point of interest represents altogether too lengthy a document to be contained in a work of this character. A glance at the balance sheet of the bank will serve to show the

present enviable position it holds; indeed, absolutely second to none in the Eastern Hemisphere, in addition to which the following details are important. The bank was established at Hongkong in 1865 and at Yokohama in 1867. The original capital of \$2,500,000 was increased in 1872 to \$5,000,000, further additions brought it up to the ten million mark in 1891, and in 1907 it was raised again to \$15,000,000, where it stands to-day. Of even greater significance is the fact that so successful were the bank's operations up to the end of 1916 that the accumulated reserves aggregated \$33,000,000, or more than double the capital. The sum of \$15,000,000 has been set aside to form a sterling reserve (at Ex 2/- = £1,500,000) which is invested in British War Loan Bonds.

A further indication of the phenomenal rise of the institution as well as the extraordinary degree of public confidence enjoyed, is illustrated by the expansion of the deposit account which shows an increase during the last thirty-six years from \$24,198,572, in 1880, to \$303,067,800, at the end of 1916.

In addition to its commercial operations the bank has rendered valuable assistance in the promotion of Japanese, Chinese, and Siamese Government Loans, its flotations either alone or in connection with other institutions amounting to about \$200,000,000. The savings bank department for the small depositor was initiated some years ago and is much appreciated, indeed regarded as a boon.

The Yokohama premises of the bank are located in No. 2 Water Street (Midzu Machi-dori) on property covering about 2,000 *tsubo* which runs right through from the street to the water front. The staff employed consists of ten British besides sixteen Portuguese and eight Japanese assistants, also a Chinese department of sixteen. Other branches of the bank in Japan are located at Kobe and Nagasaki, representatives in Tokyo, Osaka, and Shimonoseki being, respectively, the Mitsu Bishi Goshi Kaisha, the Thirty-fourth Bank, and Messrs. Jardine, Matheson & Co.

The Yokohama branch is under the management of Mr. R. T. Wright who was appointed in 1911. Mr. Wright has been



HONGKONG & SHANGHAI BANKING CORPORATION: THE BANKING CHAMBER, YOKOHAMA—THE BANK'S PREMISES AT KOBÉ—
ENTRANCE TO THE BANK AT YOKOHAMA



THE CHARTERED BANK OF INDIA, AUSTRALIA, AND CHINA: THE BANK'S BUILDING AT YOKOHAMA AND ITS KOBÉ BUILDING

associated with the bank in the East since 1886 of which period eight years represents service in Japan. The Sub-Manager at Yokohama is Mr. J. K. Hutton. The Kobé branch of the Hongkong & Shanghai Banking Corporation was opened as far back as July, 1867, or coincidentally with the opening of the port to foreign trade. A large business has always been done there, and in course of time the branch far outgrew the original quarters. The present magnificent new premises, which unquestionably are a feature of Kobé architecture, were formally opened in March, 1903. The foundation stone had been laid two and a half years earlier on September 25, 1900, by the late Sir Thomas Jackson, Bart.

The Acting Agent at Kobé is Mr. J. McArthur. The British staff consists of seven. There are eighteen local clerks, a Chinese staff of seventeen, and a number of office boys, coolies, and other employees. The ground is 527 *tsubo*, and the building itself covers 244½ *tsubo*.

CHARTERED BANK OF INDIA, AUSTRALIA, AND CHINA

THIS very well known British institution whose activities extend throughout the Far East, has two important branches in Japan,

at Yokohama and Kobé, respectively, where it enjoys a large volume of the banking and financial business transacted in the handling of foreign and local trade. The Chartered Bank is one of the remaining five that were in existence at the time it secured its Royal Charter in 1853, the others being the Bank of Australasia, the Bank of British North America, the Colonial Bank, and the British Linen Bank. The charter has been renewed on various occasions, the last date being in 1909, when it was extended for another thirty years. In the prospectus upon which the Chartered Bank was originally formed it was stated that it was to be "established chiefly in order to extend the legitimate facilities of banking to the fast and rapidly expanding trade between the Australian colonies, British East India, China, and other parts of the Eastern Archipelago — a field at present wholly unoccupied by any similar institution. The objects of the company will, however, also embrace in connection therewith the extension of banking accommodation to the direct trade of British India, China, and Australia with this country (the United Kingdom) at present so inadequately provided for." In all respects but one these objects have been carried out, the exception being that the bank has not so

far opened any office in Australia, though, indeed, the project has been mooted on more occasions than one. The bank has faithfully kept in view the purposes which originally attracted the capital to bring it into existence, and it has extended its influence to a much greater degree than was originally intended, business being carried on in addition to India and China, in the Straits Settlements, Siam, the Dutch East Indies, the United States of America, and Japan. Although chartered in 1853 the bank did not commence business till 1857, offices being opened at Bombay, Calcutta, and Shanghai. Thenceforward the influence of the bank extended rapidly throughout the Far East, until to-day its name is a household word. The paid-up capital, which had been raised to £800,000 in 1864, remained at this figure till 1907, when the steady and continued expansion of business called for an increase. Accordingly the paid-up amount was raised to £1,200,000, consisting of 60,000 shares of £20 each, fully paid. Another evidence of the prosperity of the bank is the state of the reserve fund which amounted in 1917 to £1,900,000 or 50 per cent more than the paid-up capital, and moreover this was built up entirely from profits, with one exception. In 1907 the increase of capital



GENERAL VIEW OF BUSINESS STREET IN TOKYO

was arranged to allow of a premium of £400,000 and this was thrown into the reserve fund.

The Yokohama branch of the Chartered Bank of India, Australia, and China was opened as far back as 1878, when the port was still in the process of merging from a fishing village to a commercial *entrepôt* of world importance. The Kobe branch was opened in 1895. The high record established and maintained for over sixty years throughout

the Far East, and the early start made in Yokohama forty years ago, have combined to give the bank the highest prestige in Japan as a financial institution. The bank has fine premises in both Yokohama and Kobe, the Yokohama premises being as handsome and imposing as those of any similar institution in the Far East, and its towering dome is one of the landmarks of the port. Mr. J. Alston has been manager in Yokohama since 1913.

He came to the Far East in 1890 and served the interests of the Chartered Bank in Java, Singapore, Hongkong, Saigon, Madras, and Hankow, before being transferred to the Kobe branch in 1907. Mr. Stewart, the present agent in Kobe, has been there for only a year and a half, having been stationed previously in India and Java.

Following is the balance sheet to December 31, 1916:

| LIABILITIES | | | ASSETS | | |
|--|--------------------|--------------|---|--------------------|--------------|
| | £ | s. d. | | £ | s. d. |
| To capital, 60,000 shares of £20 each, paid up.... | 1,200,000 | 0 0 | By cash in hand and at bankers..... | 5,640,891 | 19 8 |
| To reserve fund..... | 1,800,000 | 0 0 | By bullion on hand and in transit..... | 278,815 | 0 3 |
| To notes in circulation..... | 1,019,068 | 15 11 | By government and other securities..... | 3,184,307 | 4 3 |
| To current and other accounts, including provision for bad and doubtful debts and contingencies. | 14,463,317 | 9 1 | By security lodged against note issue and government deposits..... | 864,000 | 0 0 |
| To fixed deposits..... | 8,240,778 | 16 9 | By bills of exchange, including treasury bills £1,269,000..... | 12,069,092 | 12 8 |
| To bills payable:— | | | By bills discounted and loans..... | 9,601,277 | 5 10 |
| Drafts on demand and at short sight on head office and branches..... | £3,216,782 | 1 7 | By liability of customers for acceptances, per contra..... | 930,138 | 12 9 |
| Drafts on London and foreign bankers against security, per contra..... | 205,879 | 4 8 | By due by agents and correspondents..... | 132,329 | 18 1 |
| | 3,422,661 | 6 3 | By sundry assets including exchange adjustments.. | 139,725 | 1 11 |
| To acceptances on account of customers..... | 930,138 | 12 9 | By bank premises and furniture at the head office and branches..... | 550,263 | 19 6 |
| To loans payable, against security, per contra.... | 953,333 | 6 8 | | | |
| To due to agents and correspondents..... | 12,116 | 10 3 | <i>Total</i> | <u>£33,390,841</u> | <u>14 11</u> |
| To sundry liabilities, including rebates..... | 921,961 | 7 1 | | | |
| To profit and loss..... | 427,465 | 10 2 | | | |
| <i>Total</i> | <u>£33,390,841</u> | <u>14 11</u> | | | |

PROFIT AND LOSS ACCOUNT—For the year ending December 31, 1916

| DR. | £ | s. d. | CR. | £ | s. d. |
|--|-----------------|-------------|---|-----------------|--------------|
| To interim dividend at June 30, 1916..... | 84,000 | 0 0 | By balance at December 31, 1915..... | 399,205 | 12 4 |
| To balance proposed to be dealt with as follows:— | | | <i>Less</i> dividend for half-year to | | |
| Dividend, at the rate of 14 per cent per annum, for the half-year to date..... | £ 84,000 | 0 0 | December 31, 1915..... | £ 84,000 | 0 0 |
| Bonus of 12s. per share..... | 36,000 | 0 0 | Appropriation on account of further depreciation on securities... 160,000 | 0 0 | |
| Reserve fund..... | 100,000 | 0 0 | Bank premises..... | 25,000 | 0 0 |
| Officers' superannuation fund.... | 20,000 | 0 0 | | <u>269,000</u> | <u>0 0</u> |
| Bank premises..... | 30,000 | 0 0 | | 130,205 | 12 4 |
| Carried forward to profit and loss new account..... | 157,465 | 10 2 | By gross profits for the year, after providing for bad and doubtful debts, excess profits tax and bonus to the staff..... | £828,674 | 17 8 |
| | 427,465 | 10 2 | <i>Less:—</i> | | |
| <i>Total</i> | <u>£511,465</u> | <u>10 2</u> | Expenses of Management and general charges at head office and branches..... | 447,414 | 19 10 |
| | | | | <u>381,259</u> | <u>17 10</u> |
| | | | <i>Total</i> | <u>£511,465</u> | <u>10 2</u> |



INTERNATIONAL BANKING CORPORATION: KOBÉ BRANCH — INTERIOR OF HEAD OFFICE FOR JAPAN AT YOKOHAMA — BUILDING OCCUPIED BY HEAD OFFICE FOR JAPAN, YOKOHAMA — INTERIOR OF KOBÉ BRANCH

THE INTERNATIONAL BANKING CORPORATION

THE International Banking Corporation, of which Mr. J. D. Longmire is Manager, was opened in Yokohama in 1902, for the purpose of assisting American commerce in Japan and the Far East. From its earliest days it has shown that such an institution was urgently required, and it has steadily developed a large business which has been of benefit to American interests as well as those of Japanese and other nationalities.

The International Banking Corporation has a capital of G. \$3,250,000, with re-

serves of G. \$4,598,576. It has established branches at the following cities:

New York (head office), Bombay, Calcutta, Canton, Cebu, Colon (Isthmus Panama), Hankow, Hongkong, Kobe, Manila, Medellin (Rep. of Colombia), Santiago de los Caballeros (Dominican Rep.), London, Panama, Peking, Puerto Plata (Dominican Rep.), San Francisco, Santo Domingo, San Pedro de Macoris (Dominican Rep.), Shanghai, Singapore, Tientsin, Batavia.

It is also closely allied with the National City Bank of New York and through this

is in a position to assist trade with the many points at which they are represented.

INSURANCE

THE TOKYO MARINE INSURANCE COMPANY, LIMITED

THE doyen of the marine insurance companies of Japan is the Tokyo Marine Insurance Company, Limited, founded August 1, 1879, at a time when insurance was in its infancy in Japan, and nobody could have conceived that such great corporations would ever exist. Some idea of the manner in which this

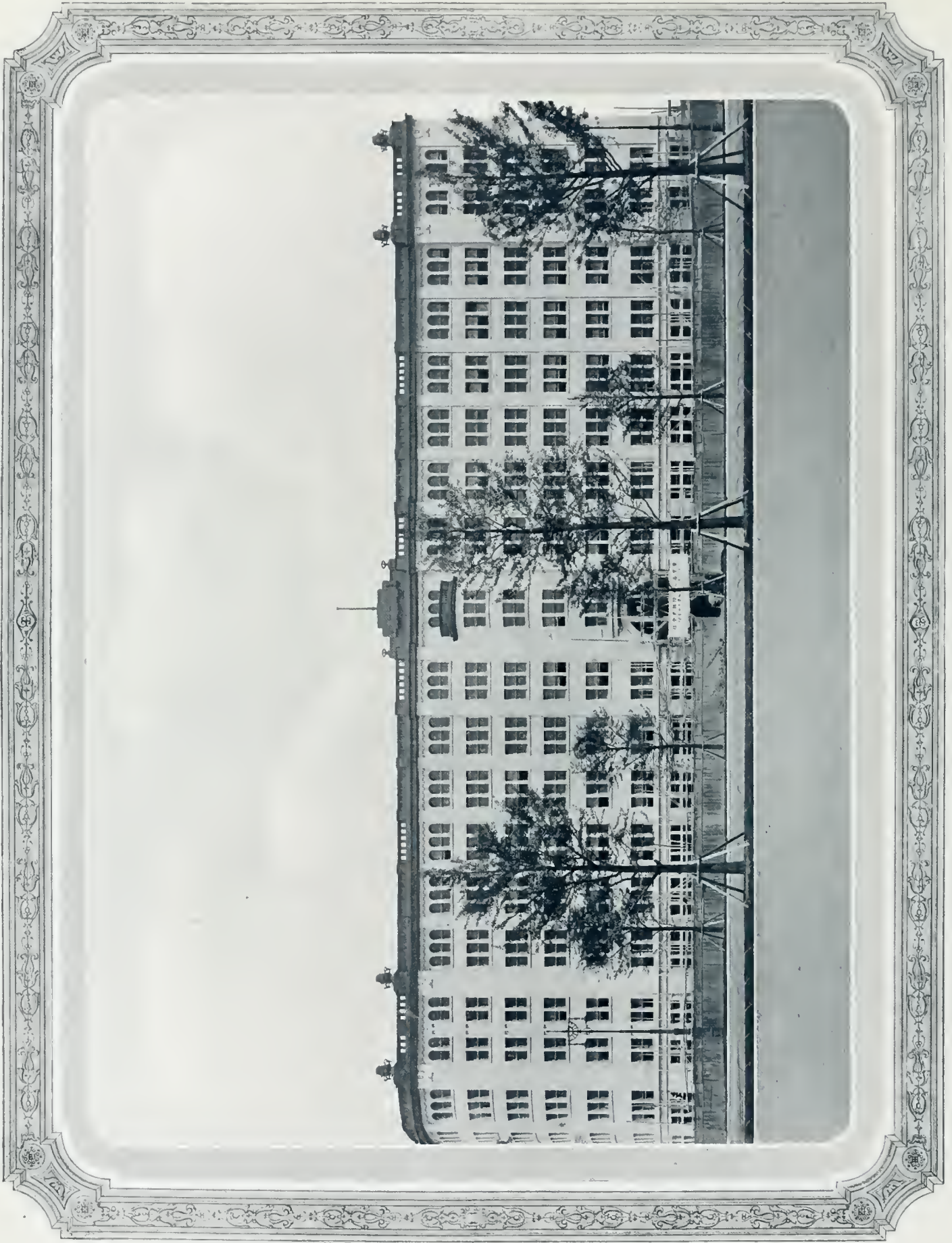


PROMINENT TOKYO AND YOKOHAMA INSURANCE MEN

(Upper Row, Left to Right) Mr. HAJIME KAWASAKI, President, Nippon Fire Insurance Co., Ltd.—Mr. SUNAO KONO, General Manager, Kyosai Life Insurance Co., Ltd., Tokyo—Mr. ZENGORO YASUDA, President, Imperial Marine Transportation and Fire Insurance Co., Ltd. (In Oval) Mr. T. ISAKA, Managing Director, Yokohama Fire, Marine, Transit & Fidelity Insurance Co., Ltd.

(Middle Row) Mr. H. SHIMIDZU, Managing Director, Aikoku Life Insurance Co., Ltd.—Mr. M. OXO, President, Yokohama Fire, Marine, Transit & Fidelity Insurance Co., Ltd.—Mr. A. FUKUHARA, President, Imperial Life Insurance Co., Ltd., President of the Association of Life Insurance Companies and Special Member of the Tokyo Chamber of Commerce—Mr. A. R. HARRIS, Manager for Japan, Sun Insurance Office of London, Chairman of the Foreign Offices Fire Insurance Association and Vice-President of the Joint Fire Insurance Association—Mr. MASAO KURACHI, Managing Director, Kyodo Fire Insurance Co., Ltd.

(Lower Row) Mr. SEIZABURO NISHIWAKI, President, Nishiwaki Bank, Ltd., and of the Taiyo Life Insurance Co., Ltd.—Mr. C. E. MALIGNY, General Manager for Japan, New Zealand Insurance Co., Ltd., Vice-President of Foreign Offices Fire Insurance Association—Dr. HARUO MOURASSE, Vice-President, Imperial Marine Transportation and Fire Insurance Co., Ltd.—Mr. T. YANO, President, First Mutual Life Insurance Co., Tokyo



NEW PREMISES OF THE TOKYO MARINE INSURANCE CO., LTD., NEARING COMPLETION



TOKYO PREMISES OF THE IMPERIAL MARINE TRANSPORTATION AND FIRE INSURANCE COMPANY, LIMITED

institution has grown may be gathered from the fact that its initial capital was only Yen 600,000 and to-day it is Yen 15,000,000. At its inception the Tokyo Marine Insurance Co., Ltd., did a small business in the coastal shipping trade of Japan, but with the expansion of Japan's commercial interests, and the tremendous development of the mercantile marine, and the growth of exports, the company is to-day covering risks all over the world, and taking its place with the greatest corporations of its kind.

Branches and agencies exist all over Japan, and there is scarcely a business centre of any importance in the world where the company is not represented. The General Agents for Europe are Messrs. Willis, Faber & Co., Ltd., 31 Cornhill, London; and for the United States and Canada, Messrs. Appleton & Cox, 3 South William Street, New York. General marine insurance is transacted, and developments in the business during recent years include fire, transportation, and motor car insurance.

Following are the principal officers of the Tokyo Marine Insurance Co., Ltd.: Chairman of Directors, Mr. M. Suyenobu (Director of the Meiji Life and Meiji Fire Insurance Cos.); Directors, Messrs. T. Abe, S. Komuro (Director Mitsui Bussan Kaisha); Baron R. Kondo (President Nippon Yusen Kaisha), K. Mimura (Director Meiji Fire Insurance Co.), S. Sasaki (Director First Bank), H. Shoda (of the Mitsubishi Co.), and K. Sonoda (Director of the Fifteenth Bank and Yokohama Specie Bank). A board of more influential commercial men could scarcely be found on any corporation in Japan. The Auditors are Messrs. F. Wuriu and S. Ogawa. The Managing Directors are Mr. K. Kagami and Mr. H. Hirao.

The financial standing of the Tokyo Marine Insurance Co., Ltd., may be gathered from the following facts: The paid-up capital is Yen 3,750,000, and the reserve funds total Yen 17,000,000. For the year ending December 31, 1916, the net premiums totalled Yen 11,419,784. After provision for additions to reserves and suspense accounts a divisible surplus of Yen 2,421,228 was distributed as follows: Dividend at Yen 4 per share, Yen 1,200,000; added to Legal Reserve Fund, Yen 500,000; carried forward, Yen 721,228. The profit and loss account for the year appears in the table at the top of this page.

The company has assets totalling Yen 42,069,081. Recently a magnificent new building (a photograph of which appears on page 136 of this volume) has been completed for the Tokyo Marine Insurance Co., Ltd., in Tokyo, on the most commanding site of the business and commercial centre of the capital.

| DR. | CR. |
|--|---|
| Yen | Yen |
| To balance from last account.. 204,901.63 | Net payments account 1916 |
| Underwriting fund from last | and previous years..... 5,561,198.35 |
| account..... 15,500,223.79 | Charges, head office, branches |
| Net premia (less returns, rein- | and agencies..... 369,269.26 |
| insurance, commission, etc.... 11,419,784.34 | Directors' and auditors' fees.. 17,625.00 |
| Interest, etc..... 2,216,327.01 | Underwriting fund at the end of |
| | the year..... 20,971,915.51 |
| | Balance..... 2,421,228.65 |
| Total Yen 29,341,236.77 | Total Yen 29,341,236.77 |

THE IMPERIAL MARINE TRANSPORTATION AND FIRE INSURANCE COMPANY, LIMITED

This company, which is one of the oldest established of the marine insurance institutions in Japan, was founded in 1893, and is another of the remarkable enterprises of the wealthy Yasuda family. To-day the company's sphere of influence is very wide, and its business is conducted on the most modern lines applicable to Japan, and based on a sound experience of local conditions. Although originally formed for marine insurance the Imperial has always marched with the times, and when railway transportation in Japan became properly developed the company added that department of insurance. This was in November, 1899. The business of insurance against fire risks was started in August, 1902. Mr. Zengoro Yasuda is President of the company. Dr. Haruo Mourasse, the distinguished authority on insurance in Japan, is Vice-President, and in that capacity he takes a very large share in the control of the company, making every effort to select the most sound risks, and devising an extension of the business. Dr. Mourasse's efforts, and the prestige attaching to his name, have made the Imperial one of the greatest institutions of its kind in Japan. Its credit is particularly

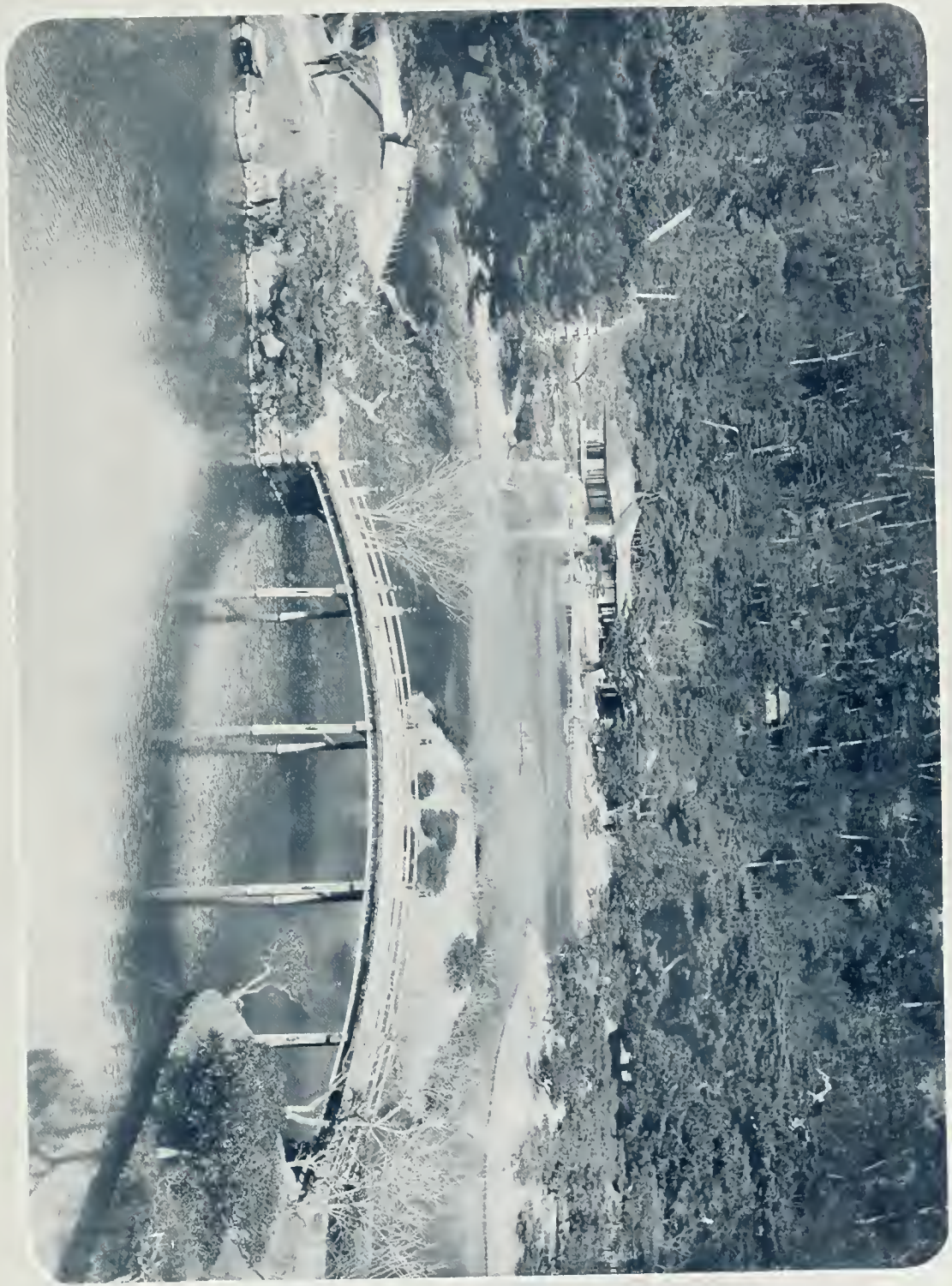
high in insurance circles. The Managing Director is Mr. Rintaro Komon, an experienced and highly respected figure in the insurance world. Branches of the Imperial Company are established at Osaka and Kobé, and agents are to be found in all the ports of Japan as well as abroad. It is no exaggeration to say that for promptness and exactness in adjusting claims and paying indemnities the Imperial ranks among the first of its kind in Japan. The last balance sheet appears at foot of this page.

In addition to the officers mentioned above the following are Directors: Baron Morimasa Takei, Messrs. Shinkichi Miyajima, Zenno-suke Yasuda, Zenzaburo Yasuda and Yeichi Chichiiwa. The Auditors are Messrs. Kahei Otani, Seizo Nakamura, and Masaoki Hikida.

THE SUN INSURANCE OFFICE OF LONDON

The Sun Insurance Office of London holds the unique distinction of being the oldest fire insurance company in the world, having been founded in 1710. At that distant date the principles of fire insurance were little known, and such business as was done was confined to a few mutual societies who insured buildings only. Marine insurance had been in operation for many years previously, but it was not

| ASSETS | LIABILITIES |
|--|---|
| Yen | Yen |
| Shares unpaid..... 2,250,000.00 | Capital..... 3,000,000.00 |
| Cash..... 207.75 | Legal reserve fund..... 305,000.00 |
| Postal savings account..... 12,987.09 | Special reserve fund..... 1,420,000.00 |
| Bank deposits..... 635,824.51 | Emergency reserve..... 200,000.00 |
| Loans..... 237,500.00 | Responsibility reserve fund... 660,127.33 |
| Investments..... 2,790,780.96 | Payment reserve..... 218,000.00 |
| Real estate..... 153,902.61 | Account due by the company.. 11,704.07 |
| Furniture..... 6,712.93 | Reinsurance account..... 14,251.04 |
| Outstanding premiums..... 87,733.49 | Sundry creditors..... 12,810.16 |
| Branch account..... 45,687.11 | Unpaid dividends..... 75.00 |
| Agents..... 70,369.34 | Profit..... 528,877.31 |
| Provisionally paid claims..... 20,647.02 | |
| Outstanding account reinsured 58,492.10 | |
| Total..... Yen 6,370,844.91 | Total..... Yen 6,370,844.91 |



KURIBAYASHI PARK IN SHIKOKU

until the Great Fire of London in 1666, and the consequent enormous damage to property that resulted, that merchants began to realise the need for protection against such loss. It was recognised that properties on land were subject to equal chances of entire destruction as were ships and cargoes at sea, and the first principle of fire insurance was impressed upon the business mind, that is, the wisdom and necessity for indemnifying the individual loser by fire out of a fund provided by contributions from the rest of his associates in the insurance organisation to which he subscribed. During the first twenty to thirty years following the Great Fire of London, numerous attempts were made to establish fire offices on a mutual plan, but most of them ended in failure. The Sun Fire Office was the first to insure movables as well as buildings, and it was also first to extend its operations to other parts of England. The scope of its activities being wider than those of any of the preceding companies it soon became the leading fire office and one of the wealthiest institutions in England. The Sun was thus the pioneer of the fire insurance business, and the conditions under which fire insurance could be undertaken, and which this institution found necessary in its practice have, with only slight modifications, become the basis of the present-day fire-insurance contract.

Among the first of the companies to extend its operations to countries outside of the United Kingdom, the Sun Insurance Office of London now has branches and agencies in practically every corner of the world. As regards Japan, the company has been operating in the Empire for over fifty years, and its activities in this field now cover not only the islands of Japan proper, but extend to the very outposts of the Japanese Empire such as Formosa, Korea, the Loochoos and even to that inhospitable island of Karafuto, more commonly known as Japanese Saghalien. The Japanese business of the Sun Insurance Office was formerly conducted through agencies, but in May, 1911, a head office for Japan was established at Yokohama by Mr. A. R. Harris, who came over from Shanghai to take charge of the company's affairs. Branch offices are maintained in Tokyo and Osaka. Mr. Harris is Chairman of the foreign offices Fire Insurance Association, and Vice-Chairman of the Joint Fire Insurance Association of Japan.

The present position of the Sun Insurance Office is shown in the Directors' report and statement of accounts for the year ending December 31, 1916, from which the following facts and figures are taken: The capital of the Company is £2,400,000 divided into 240,000 shares of £10 each, on which £2 per share has been paid, thus giving a paid-up capital of

£480,000. During 1916 fire premia, less re-insurance, totalled £1,532,349; losses paid during the same period aggregated £739,884, being at the rate of 48.28 per cent of the premiums received; expenses of management (including commission to agents and working charges of all kinds) totalled £577,384; interest realised £68,187. After reserving as unearned 40 per cent of the premiums to cover liabilities under current policies, a credit balance of £253,526 was transferred to profit and loss account. There was standing at credit of profit and loss account at the beginning of the year £335,271, which was increased by the operations of 1916 to £652,174. The pension fund was augmented by £20,000; £5,000 was placed to the war contingency fund, whilst sundry investments were written down £70,000, thus leaving at credit of profit and loss the sum of £557,174. Two dividends of 7½ per share each were paid in January and July of 1917, thus absorbing £130,200, the sum of £426,974 being unappropriated. At the end of the year the total funds of the Sun Office stood as shown below.

The Sun's assets as set forth in the balance sheet attached to the 1916 report totalled £4,057,632 at the end of the year, its investments being as shown below.

NEW ZEALAND INSURANCE COMPANY, LIMITED

ESTABLISHED in 1859 the New Zealand Insurance Company, Limited, has extended its operations all over the world, and it is

to-day an institution of which the Dominion and the Empire may justly be proud, occupying as it does a position of wealth and importance never before reached by any company founded in a remote part of Britain's Colonial Empire. The New Zealand Insurance Company, Ltd., has not only extended its operations in a manner not frequently witnessed in the case of much older companies which originated in the United Kingdom itself, but it also has earned the reputation in insurance circles of being most progressive and adaptable, and insurance practice generally owes not a little to ideas put into force by this vigorous Colonial concern. In the Argentine, for instance, this company was the first to transact insurance under the new workers' compensation laws of that country, and the tariff framed and put into force was made the basis of a joint tariff when other companies took up the business. The company's representatives in all parts of the world are generally to be found prominently associated with whatever insurance organisations may exist, stabilising and regulating the business for the general good of insurance companies and the insured.

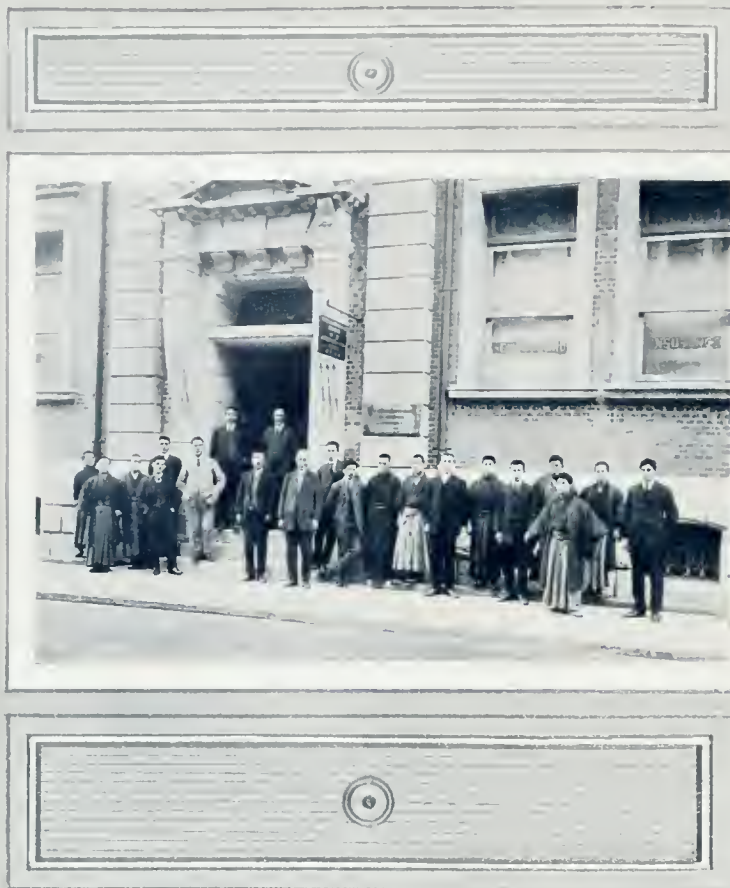
The New Zealand Insurance Co., Ltd., has been transacting business in Japan for over thirty years. It was represented by Messrs. Sale & Frazar, Ltd., as general agents up to May, 1908, when the first branch office was opened at Yokohama. The head office for Japan was transferred to Tokyo on July 1, 1914, the address being No. 1 Yuraku-cho,

| | | | |
|---|-------------------|----------|----------|
| Capital, paid up..... | £ 480,000 | 0 | 0 |
| Fire fund..... | 2,112,939 | 13 | 0 |
| Accident fund..... | 7,914 | 18 | 5 |
| Employers' liability fund..... | 138,723 | 17 | 6 |
| Burglary and general fund..... | 25,979 | 16 | 10 |
| Dividend reserve..... | 150,000 | 0 | 0 |
| War contingency fund..... | 25,000 | 0 | 0 |
| Investment suspense fund..... | 75,000 | 0 | 0 |
| Pension fund..... | 76,559 | 2 | 2 |
| Balance at credit of profit and loss account after payment of dividends.... | 426,974 | 19 | 9 |
| <i>Total.....</i> | <i>£3,519,092</i> | <i>7</i> | <i>8</i> |

| | | | |
|--|-----------|----|----|
| British Government Securities..... | £ 313,748 | 14 | 2 |
| Municipal Securities, United Kingdom..... | 9,000 | 0 | 0 |
| Colonial Government Securities..... | 31,803 | 13 | 6 |
| Colonial Provincial Securities..... | 13,668 | 8 | 0 |
| Colonial Municipal Securities..... | 73,566 | 13 | 10 |
| Foreign Government Securities..... | 229,216 | 12 | 8 |
| Foreign Provincial Securities..... | 52,223 | 0 | 8 |
| Foreign Municipal Securities..... | 113,722 | 14 | 8 |
| Railway and other debentures—Home, Colonial, and Foreign..... | 1,063,869 | 17 | 5 |
| Railway and other preference and guaranteed stocks and shares..... | 175,023 | 5 | 3 |
| Railway and other ordinary stocks and shares..... | 141,552 | 19 | 2 |
| House property, including premises occupied by the Office..... | 949,655 | 5 | 7 |
| Salvage Corps Premises..... | 22,038 | 16 | 9 |
| Deposits with Colonial banks..... | 3,500 | 0 | 0 |



SUN INSURANCE OFFICE OF LONDON: THE MANAGER AND HIS ASSISTANTS, TOKYO OFFICE —
THE HEAD OFFICE AND STAFF, YOKOHAMA



THE STAFF AND EXTERIOR VIEW OF THE HEAD OFFICE OF THE NEW ZEALAND INSURANCE CO., LIMITED, TOKYO

Itchome, Kojimachi-ku. From this branch, which is under the direction of the Manager for Japan, Mr. C. E. Maligny, the whole of Japan proper, including Hokkaido and Karafuto, as well as Formosa, Chosen, and Manchuria, are controlled, the company being represented in these territories by ten British and American firms, and 145 Japanese banks, corporations, and firms. Although the New Zealand Insurance Co., Ltd., transacts fire, marine, and accident insurance, and also acts as trustee, executor, attorney, and agent, its business in Japan is restricted to fire and marine insurance, of which it enjoys a large share. Under the Japanese insurance law a substantial deposit is required by the Imperial Government from foreign insurance companies. This represents in the case of the New Zealand Insurance Co., Ltd., Yen 290,000, which is 50 per cent of the premium account for 1916. Some idea of the financial strength of the New Zealand Insurance Co., Ltd., may be gathered from the fact that though its paid-up capital is £450,000, out of a subscribed capital of £1,500,000, its reserves

amount to over £720,000. It had a premium income for the year 1916 of £924,790, and the available surplus at the end of the period was £116,379. The total assets of the company are £1,594,387. It has paid losses to date totalling £10,540,329.

The principal agents of the New Zealand Insurance Co., Ltd., in Japan are as follows: Yokohama, Messrs. Sale & Frazar, Ltd., and Mr. F. Schoene, 167 Yamashita-cho; Kobe, Messrs. Shewan, Tomes & Co. and J.R. Black; Moji, Messrs. Horace Nutter & Co.; Hakodate, Messrs. E. J. King & Co.; Seoul, Messrs. L. Rondon & Co.; Dairen, Fujiwara Shokwai; Chemulpo, the Eighteenth Bank; Nagasaki, Mr. F. Fuse; Nagoya, Unso Kai Shoten; Tokyo, Kai Shoten; Fukuoka, Meidi-ya Kaisha, and Osaka, Tokiwa Shokwai. The staff of the Japan branch comprises Messrs. C. E. Maligny, Manager; R. Graham, Accountant; R. Leopold and N. B. Forrest, Assistants; S. Normura, Chief Japanese Clerk; S. Ishiguro, Assistant Chief Japanese Clerk; K. Kataoka, Chief Clerk, Osaka sub-branch; O. W. Luke, Chief Clerk, Yokohama office,

and C. W. Cheng, Compradore, Yokohama office. In addition forty-five Japanese clerks are employed.

THE YOKOHAMA FIRE, MARINE, TRANSIT AND FIDELITY INSURANCE COMPANY, LIMITED

UP to the close of the last century, all the silk merchants of Yokohama as well as the silk manufacturers in the remoter parts of the country had to rely upon chance as to the safety of millions of yens' worth of their expensive stocks and outputs, piled up in warehouses or godowns. They were without any protection whatever in the way of insurance over their fortunes, as the few fire offices then existing in the Empire were neither prepared nor willing to accord them this much-needed protection. It was mainly to supply this great desideratum to the silk trade of the country that the company under review was first established in 1897 by millionaire dealers in silk and prominent captains of the trade and industry of Yoko-



THE YOKOHAMA PREMISES OF THE YOKOHAMA FIRE, MARINE, TRANSIT AND FIDELITY INSURANCE COMPANY, LIMITED

hama, followed by others of the important silk centres, with an authorised capital of 5,000,000 yen, one-quarter of which has been paid up.

The first directorate consisted of the late Mr. T. Tomita, ex-President of the Bank of Japan, President; Mr. K. Tsuchiko, Vice-President and Managing Director, Mr. M. Ono, Mr. I. Wakao, Mr. Y. Mogi, and Mr. S. Shibusawa; while the late Mr. T. Anzai, Mr. M. Kaneko, and the late Mr. J. Kakiage were vested with the first auditorship.

Ever since its inception, the most characteristic feature of the company has been its very cautious and almost conservative way of underwriting and to this very policy is due its incessant progress and steady development in the face of divers difficulties lying in the way of a Japanese fire office, such as the general flimsy construction of nine-tenths of its risks, highly combustible nature of the building materials commonly used, inefficient and primitive methods and equipments for fire-fighting, with no waterworks or utterly inadequate ones, if any, in most cities and towns.

Some companies have been very seriously and in a few instances almost fatally affected by the great conflagrations of Tokyo, Osaka, Hakodate, and Aomori, and more recently by those that devastated the larger parts of Yonezawa and Fukui, but the contributions of this company to these holocausts have been very moderate and rather slight compared to its incomes and resources, showing that the conflagration hazard has been carefully observed and prudently guarded against.

Finding itself on a firm footing and with a good reputation, the Yokohama Fire, Marine, Transit, & Fidelity Insurance Co. began to write the marine business in 1908, and coming out of its trial period of the first few years and taking full advantage of the most favourable conditions obtaining in the Japanese marine market since the breaking-out of the present great war, it is now making its way in this new field by leaps and bounds, each new year seeing its incomes from this source more than doubled compared with the preceding year.

While the company has never been slack in its endeavour to increase its reserve funds and to set itself on a firmer and firmer basis every year, it has been paying pretty good and steadily increasing dividends to its shareholders, the rate for the last fiscal year, ended May 31, 1917, being 13 per cent ordinary, and 7 per cent special, though the year has been the worst year in a long time for the fire offices doing business in the country, owing to the disastrous fires in the Yokohama, Kobé, Osaka, and Hangkow warehouses and the terrible conflagrations in Yonezawa and Fukui. In fact, the average loss ratio of this company has been very good, being only 42

per cent of the premium incomes for its first nineteen years, and the enormous warehouse and conflagration losses during the last fiscal year making it an average of 49.7 per cent for the whole twenty years of its operation. Its expense ratio is slightly over 28 per cent for the same period, including taxes and duties.

Its loss-paying record is excellent not only under ordinary conditions but also in settling claims arising through conflagrations.

Besides its authorised capital of 5,000,000 yen, the company now has some 3,000,000 yen of reserves, all to meet its liabilities.

As is implied by its title, the company also writes transport and fidelity business, though minor in its importance compared to the fire and marine business, yet very successful. Incidentally, this is the only company in Japan that is issuing fidelity bonds.

The present management still consists mostly of notables of Yokohama, with Mr. M. Ono, M. P., as President, Mr. T. Isaka as Managing Director, and Mr. C. Ohama, Chairman of the Municipal Council of Yokohama, Mr. I. Wakao, M. P., Mr. T. Hara, Mr. G. Shibusawa, and Mr. S. Mogi, as Directors; while Mr. T. Ishikawa and Mr. B. Watanabe are Auditors and Mr. U. Nishikido, General Manager.

An examination of the financial statements of the company for the year ending May 31, 1917, shows the following facts:

REVENUE ACCOUNT

| Yen | Yen |
|---|---|
| Revenue account brought forward..... 191,467.56 | Losses paid..... 1,791,231.42 |
| Premium reserves..... 1,860,000.00 | Premiums for reinsurances..... 1,283,594.05 |
| Reserve for unpaid losses..... 65,000.00 | Commission, taxes, and expenses..... 461,831.60 |
| Premiums received during year..... 2,726,914.59 | Depreciation..... 7,006.49 |
| Claims recovered or indemnified..... 1,170,971.08 | Premium reserve fund..... 2,110,000.00 |
| Interest, dividends, etc..... 432,411.46 | Unpaid losses..... 273,200.00 |
| Income from investments..... 47,909.60 | Surplus..... 567,810.73 |
| <i>Total</i> Yen 6,494,674.29 | <i>Total</i> Yen 6,494,674.29 |

THE KYODO FIRE INSURANCE COMPANY, LIMITED

This company was founded on June 30, 1906, with a capital of Yen 5,000,000.00, and is to-day in a very strong position, handling a large volume of insurance received over a wide range of territory. The Managing Directors are Messrs. S. Morimoto and M. Kurachi, and the Directors and Auditors are Messrs. T. Tanabe, T. Murai, C. Watanabe, M. Matsukata, N. Hiroumi, U. Suzuki, G. Yamaguchi, K. Ukita, K. Sugiyama, and K. Banno. These gentlemen are very well known in insurance and commercial circles generally, and their names stand for all that is sound

and stable in the control of such an important enterprise. The company has had a very prosperous career and in 1916 its total revenue was Yen 2,347,439.30. The staff employed numbers 203. Branches of the company exist at Tokyo, Osaka, Kyoto, Yokohama, Kobé, Nagoya, Sendai, Fukuoka, Kanazawa, Daihoku, and Keijo. There are also agencies scattered throughout Japan proper and the dependencies of the Empire, and also Manchuria, China, Hongkong, and India. The head office of the Kyodo Company is at Nos. 4 and 5 Honkawaya-cho, Nihonbashi-ku, Tokyo.

THE CHINA MUTUAL LIFE INSURANCE COMPANY, LIMITED, TOKYO

The China Mutual Life Insurance Company was founded early in 1898, and was incorporated under the Hongkong Companies Ordinances. In 1908 the company was registered in Great Britain, under the Companies (Consolidation) Act, and under the Assurance Companies Acts, and annually makes the returns required under those Acts. The company is also registered in India, the Straits Settlements, the Philippines, and Japan.

The head office of the company is in Shanghai, China, the building being a very beautiful piece of architecture, probably unsurpassed anywhere by any edifice of the same size. The outstanding features of the

building are the vestibule done in marble, the roof being inlaid with Salviati gold mosaic; the principal stairway of marble; and the dome of the main office, lined internally with sixteen stained glass panels representing the Virtues.

While the head office of the company is in Shanghai, China, the company is a British company, and all the directors and officials are British. The aim of the management and of each official has been, and is, to give to both Asiatic and European residents in Asia the benefits of life insurance in a company whose affairs are conducted according to the best traditions of the great British companies



KYODO FIRE INSURANCE COMPANY, LIMITED: SCENES IN THE COMPANY'S OFFICES—THE TOKYO PREMISES



THE CHINA MUTUAL LIFE INSURANCE COMPANY, LIMITED: HEAD OFFICE (NO. 10 CANTON ROAD, SHANGHAI)—VIEW
OF THE STAIRCASE FROM THE VESTIBULE—GLIMPSE OF THE MAIN OFFICE FROM THE
VESTIBULE—VIEW OF THE INTERIOR OF THE HEAD OFFICE

in England and Scotland, with the conveniences offered by the location of the head office in the East. Founded originally with the primary object of insuring residents in China, the company quickly grew, so that it now has policy-holders of every race both in Asia and in Europe, agencies in every part of the Far East, and has arranged facilities for the collection of premiums and the payment of claims in any part of the world. The policy adopted by the company in regard to the lives to be assured has also been followed when dealing with investments. The company's investments have been carefully made and judiciously spread over the world. In consequence of this geographical distribution of investments, this company has not suffered to nearly the same extent as many of its competitors from depreciation of securities.

The Japan Agency, which is under the management of Mr. Charles Neill, was established in 1911. Since the promulgation of the New Insurance Laws in December, 1912,

the company has been licensed by the Imperial Japanese Government to transact the following plans of insurance in the Empire of Japan: Whole Life Assurances, Endowment Assurances, Children's Endowments, Educational Endowments, Annuities.

That the system of management of the company has been fully appreciated by the Japanese is evidenced by the promptitude with which approval has been granted to transact the plans of assurance referred to, and the remarkable success which has attended the company's operations in Japan.

The chief office of the company in Japan is in Tokyo, at No. 3 Uchisaiwaicho, Itchome, Kojimachi-ku (opposite the Hypothec Bank), where a staff of twenty-five clerks is employed. Branch offices are established at Yokohama, Nagoya, Kyoto, Osaka, Kobe, Shimonoseki, Fukuoka, Sasebo, Nagasaki, Tokushima, Tottori, Saga, Kumamoto, Kagoshima, Utsunomiya, Sendai, Hokkaido, etc.

NIPPON FIRE INSURANCE COMPANY, LIMITED

ESTABLISHED in 1892, the Nippon Fire Insurance Company, Limited, ranks amongst the oldest concerns of its kind in Japan. The head office of the company is at 12 Ginza Itchome, Tokyo, with branches and agencies throughout Japan and the Far East. The fact that the Kawasaki family, that runs the Kawasaki Bank, a leading private bank in Japan, are the largest shareholders in the Nippon Fire Insurance Co., Ltd., speaks volumes for the stability and financial standing of the organisation.

The company engages in all classes of fire, marine, accident, and burglary insurance, the last three named having been added to the company's activities at a comparatively recent date. As pioneer movements of a fire company and also as undertakings that satisfy the growing demand of the Japanese economic world, these latest enterprises are developing in a satisfactory manner. In the



HEAD OFFICE OF THE NIPPON FIRE INSURANCE COMPANY, LIMITED, TOKYO

report for the year ended March 31, 1917, the volume of fire insurance showed an increase in value of Yen 137,317,000 over that of the previous year, and the premium receipts increased by Yen 123,660, the lower rate of increase in the latter being attributable to the downward tendency of rates ruling in Japan for some time past. The year was fortunately free from any serious conflagrations, and the company paid claims of Yen 589,523, being an increase of Yen 158,500 over the previous year. In the Accident Insurance Department highly satisfactory results were recorded, thanks to the active development of industry recently, and the enforcement of the Factory Law on March 31, 1917. The Marine Insurance Department of the Nippon Company had been in existence only nine months, but, favoured by the marked activity in the shipping trade, the volume of business totalled Yen 11,815,784, yielding a premium income of Yen 113,640, as against an outgoing of Yen 28,115.00. It is fully expected that this phase of the company's business will show a marked increase.

The financial statements show the following balance for the year ending March 31, 1917:

| ASSETS | | LIABILITIES | |
|--------------------------------|------------------|---------------------------------|------------------|
| | Yen | | Yen |
| Capital unpaid..... | 2,250,000.00 | Capital subscribed..... | 3,000,000.00 |
| Cash in hand..... | 689.49 | Legal reserve fund..... | 310,000.00 |
| Deposits with banks..... | 1,863,941.15 | Reserve fund (including premi- | |
| Postal cheque and Giro account | 7,222.18 | um reserve)..... | 1,903,500.00 |
| Bonds and stocks..... | 1,258,453.00 | Reserve for outstanding loss... | 42,367.94 |
| Real estate..... | 392,568.83 | Employees' pension fund..... | 36,500.00 |
| Office furniture..... | 4,944.96 | Dividend unclaimed..... | 1,668.93 |
| Agencies' balances..... | 71,097.82 | Employees' guarantee fund..... | 37,096.85 |
| Sundry securities..... | 472.60 | Balance of re-insurance account | 235,200.72 |
| Bills receivable..... | 57,688.04 | Bills payable..... | 30,629.44 |
| Accounts due to the company.. | 83,242.18 | Profit..... | 393,356.38 |
| <i>Total</i> | Yen 5,990,320.26 | <i>Total</i> | Yen 5,990,320.26 |

The capital of the company is Yen 3,000,000, of which Yen 750,000 is paid up, and the reserves amount to Yen 2,422,724.32

The Board of Directors is as follows: Chairman, Mr. Hajime Kawasaki; Messrs. Jozaburo Imura, Hachihemon Kawasaki, Raita Fujiyama, Seishichi Shikata, and Sin-ichiro Sakuma. The Auditors are: Messrs. Yoshihisa Usui, Tanejiro Kanazawa, Sakugoro Kobayashi, and Hiroshi Ando.

THE AIKOKU LIFE INSURANCE COMPANY, LIMITED

THIS rich and strong insurance enterprise, which ranks very high in Japan, was established in Tokyo in July, 1896, by a group of prominent business men included among whom were the present President, Mr. M.



AIKOKU LIFE INSURANCE COMPANY'S BUILDING, TOKYO

Suzuki, Messrs. M. Kumakawa, T. Fujita, and G. Kishida of Tokyo; K. Hattori and H. Taniguchi of Kyoto; M. Takayasu, M. Nakano, and R. Kobayashi of Osaka, and K. Kato of the Aichi Prefecture, and many others equally well known in Japanese commercial and financial circles. The organization was that of a joint-stock company with a capital of Yen 300,000.00, divided into 6,000 shares of Yen 50.00 per share. Business was opened in February, 1897, the head office being situated at Nihonbashi-ku, Tokyo, branch offices being established at Osaka, Kyoto, and Nagoya. The first Board of Directors comprised the following gentlemen: President, Mr. B. Totsuka; Managing Director, Mr. M. Suzuki (now President); and Directors, Messrs. K. Hattori, K. Osumi,

M. Nakano, M. Kumakawa, T. Fujita, R. Kobayashi, G. Kishida, T. Miura, and K. Sudo. Messrs. K. Kato, M. Takayasu, S. Tamamidzu, and Y. Kusaka were the Auditors. The Aikoku Company entered upon the following classes of insurance: Ordinary life, limited payment life policies, endowment policies, short-time installments for endowment insurance, endowment policies with dividend, insurance for business capital, insurance for education and marriage expenses, insurance against infectious diseases. This latter class of insurance was discontinued in 1908 when the government introduced the preventive system against disease. A vigorous and broad policy of management was followed from the inception of the company's operations, and this resulted in a rapid extension of the business. Branches were opened throughout Japan in the following order: Osaka (April, 1897); Kyoto (March, 1897); Nagoya (January, 1905); Sendai (Tohoku), November, 1903; Kagoshima (February, 1904); Kanazawa (August, 1904); Shizuoka (March, 1905); Yokohama (April, 1905); Kōfu (Hokushin), June, 1905; Okayama (April, 1905); Keijo, Korea (June, 1908); and Kyushu (September, 1909). Besides these branches the company has 954 agencies throughout Japan and its possessions. In 1903 the Aikoku extended its business to Seoul, Chemulpo, and Fusan, in Korea, and met with great success. Now the directors have under consideration a further extension to Taiwan (Formosa), Saghalien, and China.

The first dividend of the company was eight per cent, in 1898. This rate was continued until 1906 when the dividend increased to ten per cent per share and was maintained at this figure until 1914. In 1915, 15 per cent was paid, and the dividend for 1916 rose to 25 per cent. The principal funds of the company at the end of 1916 stood as follows: Liability Reserve Fund, Yen 9,664,675; Fixed Dividend Fund, Yen 384,995; Profit Dividend Fund, Yen 21,499; other reserve funds, Yen 158,534. At the end of the same period there were in force 117,206 policies for a total insurance of Yen 47,234,832. The company has received during its twenty years of existence premiums totalling Yen 18,299,866, and interest, Yen 3,041,389. The total insurance paid for the same period was Yen 4,592,862. The gross expenditure for the twenty years was Yen 5,555,191.

The present Board of Directors of the Aikoku Life Insurance Co., Ltd., consists of, President, Mr. M. Suzuki; Managing Directors, Messrs. H. Shimidzu and M. Nakano; Directors, Messrs. G. Asayama, N. Miyamoto, R. Koedzuka, and S. Tamamidzu; Auditors, Messrs. Y. Hyodo and S. Shimada.

The handsome new premises in which the company has its headquarters at 3 Yurakucho, Kojimachi-ku, Tokyo, were completed in December, 1912, when the old quarters in Nihonbashi-ku were vacated.

THE KYOSAI LIFE INSURANCE COMPANY, LIMITED, TOKYO

THE Kyosai Life Insurance Co., Ltd., is one of the enterprises of the famous Yasuda family, and its organisation and management conform in every respect to the solid and conservative methods which have become associated with the name of Yasuda. The company was originally established in 1880, when it became the pioneer of life insurance companies in Japan. At the time of its establishment the company limited its operations to accepting only five hundred insurers and it became known as the Kyosai (Mutual Life) 500 Insurers Society. The organisation was changed to a limited liability company in 1894, and the business was enlarged to accept insurance subscriptions from the general public. Again the organisation was changed in April, 1900, and the company's name became the present one. Thus the Kyosai has thirty-eight years of experience, and it is generally recognised to be on a solid foundation and among the leaders of insurance in the Orient. The policy of the Kyosai Company is a wide and sound one. All speculation is avoided, and

an earnest effort is continually being made to promote the interests of the policy-holder, for though the company is a joint-stock concern, it is really conducted as a mutual society. For instance, the company does not allow more than six per cent to be paid

58,000,000.00, and the limited reserve fund against this was Yen 11,720,000.00. The Kyosai Company accepts only two kinds of life insurance business, namely, the ordinary and the special endowment policies with participation in profits.



PREMISES OF THE KYOSAI LIFE INSURANCE COMPANY, LIMITED

to shareholders and from five to fifteen per cent of profit has been deducted every year and deposited to the ordinary reserve fund. The greater part of all profits is distributed among the policy-holders according to the amount of the insurance policy. With such a system in force it is not surprising to learn that the company's business is growing annually, new contracts to the value of over Yen 10,000,000.00 being written and more than Yen 2,000,000.00 of premiums being earned every year. The amount of insurance in force at the end of 1916 was over Yen

The head office of the Kyosai Company is at Kobuna-cho, Nihonbashi-ku, Tokyo. Branches are maintained in Tokyo, Osaka, Fukuoka, Hiroshima, Nagoya, Sendai, Toyama, Kyoto, Kobe, Otaru, Kagoshima, Dairen, Seoul, and Taihoku (Formosa). The Board of Directors comprises the following gentlemen: Messrs. Zenzaburo Yasuda (President), Zennosuke Yasuda, Zenshiro Yasuda, Yoshio Yasuda (Auditor), and Sunao Kono (General Manager). The following is a sketch of the business progress of the Kyosai Co., 1894-1916:

| YEARS | NEW CONTRACTS | ACTUAL CON- TRACTS AT THE END OF YEAR | REVENUE OF PREMIUM | RESERVE FUNDS |
|-------|------------------|---|-----------------------|------------------|
| | Yen | Yen | Yen | Yen |
| 1894 | 1,016,000.00 | 1,400,600.00 | 36,540.00 | 56,090.00 |
| 1895 | 2,433,300.00 | 3,792,700.00 | 95,461.00 | 83,330.00 |
| 1896 | 3,048,700.00 | 6,471,800.00 | 214,262.00 | 178,015.00 |
| 1897 | 2,586,900.00 | 8,709,500.00 | 293,307.00 | 311,653.00 |
| 1898 | 2,290,700.00 | 10,434,200.00 | 400,343.00 | 552,923.00 |
| 1899 | 1,962,300.00 | 11,254,200.00 | 396,265.00 | 757,911.00 |
| 1900 | 2,501,000.00 | 12,044,700.00 | 423,644.00 | 964,330.00 |
| 1901 | 1,887,600.00 | 11,634,200.00 | 424,729.00 | 1,157,686.00 |
| 1902 | 2,345,000.00 | 11,914,300.00 | 490,926.00 | 1,385,600.00 |
| 1903 | 3,343,700.00 | 13,680,300.00 | 573,391.00 | 1,670,042.00 |
| 1904 | 2,419,600.00 | 14,167,000.00 | 596,616.00 | 1,958,243.00 |
| 1905 | 3,372,000.00 | 15,940,400.00 | 659,460.00 | 2,284,851.00 |
| 1906 | 6,520,000.00 | 20,652,300.00 | 828,432.00 | 2,765,162.00 |
| 1907 | 8,302,900.00 | 26,456,500.00 | 1,091,381.00 | 3,367,837.00 |
| 1908 | 8,078,900.00 | 30,828,000.00 | 1,343,022.00 | 4,169,944.00 |
| 1909 | 6,704,500.00 | 33,300,100.00 | 1,495,870.00 | 5,063,331.00 |
| 1910 | 7,149,400.00 | 36,479,400.00 | 1,631,257.00 | 6,077,298.00 |
| 1911 | 8,312,900.00 | 41,102,200.00 | 1,803,698.00 | 7,177,553.00 |
| 1912 | 10,985,300.00 | 47,868,600.00 | 2,071,888.00 | 8,435,551.00 |
| 1913 | 10,929,300.00 | 53,651,200.00 | 2,243,982.00 | 9,766,645.00 |
| 1914 | 9,686,100.00 | 57,357,400.00 | 2,278,239.00 | 10,965,208.00 |
| 1915 | 8,317,400.00 | 57,086,400.00 | 2,278,375.00 | 12,152,983.00 |
| 1916 | 8,726,500.00 | 58,422,500.00 | 2,391,146.00 | 13,643,180.00 |

THE FIRST MUTUAL LIFE INSURANCE COMPANY, TOKYO, JAPAN

THIS company is the first mutual life assurance concern ever established in Japan. It was projected by Mr. Tsuneta Yano, Ex-President I. A. J., F. A. S. A. and M. Cor. I. A. F., who is now its president. Mr. Yano was a professional physician and first connected himself with the life insurance business in 1889, as a competent physician of The Nippon Life Assurance Co., Ltd. At that time, almost all life insurance companies of Japan were organised and conducted with the sole idea of making profits for the stockholders, and as such a principle was contrary to his own, Mr. Yano published a pamphlet in 1893, earnestly advocating the establishment of a life insurance company of a non-mercenary nature.

To investigate the life insurance business abroad, Mr. Yano made a tour through Europe and America in 1895, returning home in 1897. In the year following, he entered the government service, and in the Department of Agriculture and Commerce, and the Investigation Committee of Legislation, he devoted himself to the task of drafting the Assurance Law, containing various regulations for supervising insurance business and also private contracts governing mutual life insurance companies.

In 1899, when the project of law had passed the Imperial Diet and had become law, a special section was first created in the department for its execution, and Mr. Yano was

appointed the first Chief. At the close of 1901, Mr. Yano resigned his government position on his own account and took the lead in the movement for establishing in Japan an ideal mutual life insurance company, which inaugurated its business in October, 1902, and he is now its President.

The business plan was drawn up principally in accordance with Mr. Yano's idea. The chief features are briefly as follows:

- (a) The company does not entertain any life insurance contract below 1,000 yen. The object is to curtail canvassing expenses, which are apt to grow too much, if smaller contracts are to be entertained, as was the case with some other companies when this company was established, entertaining such small contracts as 50 yen or 100 yen.
- (b) The company does not propose to have agencies or branches established, for the same reason as stated above.
- (c) As it is the original nature of a mutual life insurance institution, the company gives the policy-holders or members the right to participate in the management and entitles them to due share of its profits. It may be observed also that until the First Mutual Company was established, few of the other companies had declared their dividends sufficiently to their policy-holders.

There are now no less than thirty-seven life insurance companies, of which six are of mutual character. Even in the case of limited companies, they have now raised their standard of the minimum contract to 300 or 500 yen and there is none now that does not declare certain dividends to its contractors. The company is, however, the only concern that has neither agencies nor branches established anywhere.



TOKYO PREMISES OF FIRST MUTUAL LIFE INSURANCE COMPANY

As it will be very clearly seen from the foregoing statement, the company is an ideal mutual life insurance establishment, striving to do its utmost to give its members the lightest possible pecuniary burdens. The rate, both of expenditure and of surrenders of contract, is smaller than that of any other company. On the other hand, the new contracts do not increase as much as other companies. From a mercenary point of view, therefore, the company must be considered a very poor institution. This is because the company exerts itself to the utmost to become the best company, but not the largest one. All possible efforts have been made to curtail the expenses to a limit of ten per cent of the total revenue.

The premium of the company is based upon the national mortality table and the assumed interest of 3.5 per cent. The premium reserve is of the net premium method and the premium for unexpired risk or simple unexpired premium is laid by gross in proportion to unexpired time. The dividend is paid out to each member every year on the basis of the total amount of premiums he has already paid up, while many companies declare their dividends according to the Tontin system, and such payment of dividend commences only when the policyholder has paid in his fifth premium. The

company undertakes to pay the dividend to the members continually for four years even after their death, so each member receives his dividend exactly as many times as he pays in his premium. The company has been paying the dividend at the rate of three per cent per annum and consequently one's premium decreases year after year in arithmetical progression, or the sum insured increases year by year in considerable amount according as the policyholder applies the dividend to reduce his premium or to purchase an additional insurance.

The business record for the fourteenth fiscal year, from September 1 to August 31, 1916, and the financial condition at the end of the same fiscal year will be seen from the figures in the table below.

Of these various items, the negotiable instruments and immovable property, if valued at the current prices, would no doubt amount to 1,400,000 yen more than the figures given in the Balance Sheet, and moreover the liability reserve, if calculated in accordance with the Zillmer's method, as in the case of many other companies, would make the liabilities decrease to the extent of some 500,000 yen. The above stated surplus is chiefly paid off to the members of the company in the form of dividends.

TEIKOKU SEIMEI HOKEN KAISHA (THE
IMPERIAL LIFE INSURANCE COM-
PANY, LIMITED)

This company was established on March 1 1888, under the auspices of the present President, Mr. A. Fukuhara, with the coöperation of Messrs. J. Koaze, I. Matsumoto, K. Ito, and T. Kakara. It is indeed the oldest institution of its kind in Japan, and dates back to the time when insurance was almost unknown in the Empire. The original capital was Yen 300,000. Headquarters were established at Horidome-cho, Nichome, Nihonbashi-ku, Tokyo. When the Imperial came into existence the general conception of insurance among the Japanese was of the most primitive nature and not only did the promoters of the new enterprise find great difficulty in securing shareholders in the company for such a comparatively small amount of capital, but when once they had started business they found the task of securing policy-holders to be almost insurmountable. Canvassing was a very tough proposition in those days. However, with the passage of time and the education of the people to the benefits of insurance the initial difficulties disappeared, and since then the company has steadily increased its business. Early in its career the old offices were found to be too small for the volume of business transacted and the company removed to Himono-cho, Nihonbashi-ku.

At the outset Mr. Koaze occupied the office of President of the company, but three years later Mr. A. Fukuhara took his place, and under his personal and painstaking efforts the business was rapidly developed, many branch offices being opened, not only in Japan but in Korea and Manchuria. By the end of 1893 the total of insurance had reached to over Yen 10,000,000. In November, 1897, after the close of the Chino-Japanese War, the economic condition of Japan showed unusual activity, and business was so good that the Imperial increased its capital to Yen 1,000,000. The buoyant condition of affairs showed itself in the greater demand for insurance and the company's policies amounted in total to Yen 20,953,200 by the end of 1898. It was after Mr. Fukuhara's return, in June, 1900, from an extensive tour of Europe and America, during which he made a comprehensive investigation into insurance matters in three countries, that important reforms took place in the Imperial's system of doing business. The participation in profits idea was introduced, and was an entirely new thing in Japanese insurance circles. Other improvements were also effected and proved highly acceptable to the policy-holders and the general public, so that a strong demand arose for the Imperial's policies. The business had by now expanded so vigorously that the offices had to be

| INSURANCE ISSUED AND REVIVED | DEATHS | LAPSED | INSURANCE IN FORCE |
|------------------------------------|-------------|---------------|--------------------|
| Number of Policies 3,503 | 224 | 1,179 | 22,455 |
| Amount Yen 5,221,400 | Yen 354,343 | Yen 1,726,622 | Yen 35,276,041 |

| PREMIUMS RECEIVED | INTEREST OF VARIOUS KINDS RECEIVED | BUSINESS EXPENSE |
|-------------------|------------------------------------|------------------|
| Yen 1,469,715 | Yen 436,729 | Yen 185,775 |

| ASSETS | LIABILITIES |
|---|---|
| Yen | Yen |
| Unpaid fund 75,000.00 | Fund 100,000.00 |
| Cash 6,627.25 | Reserve fund 100,764.74 |
| Post office book transfer savings account 14,621.23 | Legal reserve 55,980.42 |
| Bank deposits 1,677,984.12 | Liability reserve 4,877,228.72 |
| Loans 497,410.39 | Reserve for dividend surplus from insurance 376,163.63 |
| Securities 3,275,827.10 | Current reserve 32,497.26 |
| Real estate 480,379.34 | Amount brought over from preceding term of fund for dividend 0.76 |
| Outstanding account 20,693.83 | Provisional revenue 1,731.04 |
| Building account 66,514.30 | Caution 15,205.55 |
| Total Yen 6,115,057.56 | Special reserve 50,000.00 |
| | Surplus 505,575.44 |
| | Total Yen 6,115,057.56 |



PLANT OF THE TAKASAGO INDUSTRY COMPANY, LIMITED, TOKYO—OFFICES AND WORKS OF THE NIPPON YUSI KABUSHIKI
KAISHA, YOKOHAMA—PREMISES OF THE TAKASAGO LIFE INSURANCE COMPANY, LIMITED

removed to the present large building at No. 16 Gofuku-cho, Nihonbashi-ku, on October 1, 1902. During the Russo-Japanese War of 1904-5 the Imperial, in common with all other companies, received an inevitable setback through the death of so many policy-holders, but after the restoration of peace a reaction set in. Trade was good and prosperity general throughout the country. The Imperial made special efforts to strengthen its position and succeeded, its business expanding by leaps and bounds, as may be judged from the fact that there was a sudden increase in the amount insured, reaching a total of Yen 53,997,100. Since 1909 the company's business has been steadily developed along the best lines, its financial stability becoming more and more marked each year. Branches were opened on a wide scale to take care of the exterior development of the business. The branches are in Tokyo, Osaka, Sendai, Fukuoka, Sapporo, Kanazawa, Nagoya, Hiroshima, Seoul, Taipeh and other important cities, together with 26 sub-branches and over 1,100 agencies throughout Japan and her dependencies. The company has also extended its influence to China.

According to the balance sheet of December 31, 1916, the total contracted insurance was Yen 113,991,650, with the reserve fund amounting to Yen 21,297,292. Since the inauguration of the business Yen 15,904,817 has been paid to beneficiaries under policies. Such unrivalled prosperity as has attended the operations of the Imperial Insurance Company must very largely be attributed to the rare character and ability of the President, Mr. Fukuhara, who has laboured for over thirty years to promote the welfare of the organisation, no less than to the sound system on which the company operates. This system aims at conferring the largest possible benefits on the policy-holders, and they, in their turn, have shown that they heartily appreciate the company in which they have placed such confidence.

THE TAKASAGO LIFE INSURANCE COMPANY, LIMITED

THIS is one of the three companies under the Presidency of Mr. K. Hara, who is also the head of the Takasago Industry Co., Ltd., and of the Nippon Yusi Kabushiki Kaisha. When the Takasago Insurance Co., Ltd., was formed it was decided to give it a policy widely different from those of most life insurance companies, and the principles of a joint-stock organisation and those of mutual life companies were cleverly blended. Whatever big profit there might be, the dividend to the shareholders is limited to six per cent of the capital, and the rest is credited to the policy-holders, while on the other hand, in the event

of losses being sustained they would be borne by the shareholders, and would not fall on the insured. With a view to maintaining the company's financial stability, and to insure a steady business policy, over half of the paid-up capital is deposited with the Imperial Government, and the Directors have also under consideration a scheme to deposit with the Treasury, the responsibility fund, which is to be set aside for the benefit of the policy-holders.

The Takasago Life Insurance Co., Ltd., handles insurance of two kinds, namely, whole life insurance, and endowment maturity insurance with participation in the profits. Under the latter class of policy, an endowment for twenty years, taken out at the age of 30, would mature for a gross sum of Yen 1,501.53, profits representing Yen 301.53 and bonus on maturity Yen 200. The premium for such a policy would be Yen 52.90. Similar profits and bonus accrue to the insured under the whole life policies when the insured is alive at certain ages. The capital of the Takasago Life Insurance Co., Ltd., is Yen 500,000. The head office is at No. 1 Sojurocho, Kyobashi-ku, Tokyo, and there are branches at Osaka, Fukuoka, Hokkaido, Fukushima, Nagoya, Kyoto, Kobe, Hiroshima, and Kanazawa. This company is particularly fortunate in its Board of Directors, which includes some of the best known men in business and financial circles in Japan. Mr. Hara is President and active Manager, assisted by Mr. K. Ikeda. The Directors are Viscount J. Ito, and Messrs. S. Sato, K. Kita, D. Saegusa, and N. Tatsuzawa; Auditors, Count M. Okudaira and Messrs. Y. Toshida and T. Kimura. In addition there is an advisory council comprising Viscount M. Kurushima, Baron T. Ozawa, Dr. T. Okamura, Dr. K. Keto, and Messrs. H. Kawase and K. Yegawa.

TAKASAGO KOGYO KABUSHIKI KAISHA

THE rapid industrial development of Japan has given rise to many subsidiary commercial enterprises, many of which are no doubt destined to reach great importance, especially as their activities are being availed of for production of materials for which there is not only a permanent local market, but a strong demand in foreign countries owing to the war. Among such enterprises is the Takasago Kogyo Kabushiki Kaisha (The Takasago Industry Co., Ltd.), which in a very short space of time has developed an extensive and valuable business in the manufacture of chemical products. The company was formed on July 1, 1916, its founders being such well known commercial men as Messrs. K. Hara, N. Hasegawa, and others. The nominal capital is Yen 1,000,000.00, of which Yen 360,000.00 has now been paid up. Prior to its

organisation as a limited liability company the concern had been in operation as a partnership under the style of the Dainihon Denka-kogyosho, with Mr. Hara at its head and Mr. Hasegawa managing its operations. Before long it became the Takasago Kogyosho, and finally was reorganised as a *kabushiki kaisha*. The Takasago Company is principally engaged in the manufacture of potassium chloride, the capacity at the time of writing being over 500 tons per annum, though this output is continually being increased. Other chemicals, drugs, and dyestuffs are being turned out in rapidly growing quantities.

The head office and works of the Takasago Industry Company, Ltd., are at Osaki-machi, Ebara-gun, Tokyo-fu, and a branch is established at Azuma-machi, Minamikat-sushika-gun, Tokyo-fu. The offices and works of the company cover an area of 4,242 *tsubo*. About ninety hands are employed. The principal local consumers of the products of the different works are the match manufacturing companies, and an export trade is being done with England, America, Russia, China and other countries. This trade will be enlarged as the company's operations extend and the capacity of the plants is increased to embrace the manufacture of gelatine, and other chemical products. The officers of the Takasago Industry Co., Ltd., are: President, Mr. K. Hara; Managing Director, Mr. N. Hasegawa; Directors, Messrs. K. Ohashi, D. Saegusa, and S. Yamaguchi.

THE JINJU LIFE INSURANCE COMPANY, LIMITED

THE origin of this company dates back to September 28, 1894, when a limited partnership was formed by Count N. Matsudaira, Viscount Y. Toda, Messrs. T. Nishimura, R. Minomura, S. Imamura, I. Tojo, K. Fukiji, Baron S. Tsuji and others. Business was opened on October 5, under the presidency of Baron S. Tsuji. After some years of operation the company was taken over by Mr. D. Shimogou, a wealthy merchant, and in December of 1915 it was reorganised as a joint-stock company with a capital of Yen 1,000,000. By a sound and conservative policy the business has shown a steady improvement, and the credit and reputation of the Jinju Life Insurance Co., Ltd., have spread throughout the country. At the conclusion of 1916 the insurance in force was over Yen 40,000,000, and the various reserve funds stood at some Yen 7,500,000. The minimum amount of a policy issued by the company is Yen 300, and the maximum Yen 30,000. The premium in any class of insurance is the lowest that can possibly be charged. In 1909 the company inaugurated the system of participation in profits for policy-holders to

the amount of Yen 500, provided they have maintained their insurance for a period of five years. The bonus for profits is allotted every five years. In many directions this company has shown itself progressive, adopting new and sound ideas to give the policy-holders the fullest benefits.

The principal officials of the Jinju Life Insurance Co., Ltd., are: President, Mr. Denbei Shimogou; Directors, Messrs. H. Yoshizawa, H. Okawa, Toratoro Shimogou; Auditors, Messrs. M. Hirose and Y. Kadono; Medical Adviser, Professor Shu Miyake; Councillors, Viscount N. Matsudaira and Mr. E. Tanaka, and Manager, Mr. T. Tamaki. The head office of the company is at No. 3, 1-chome, Uchisaiwaicho, Kojimachi-ku, Tokyo. There are branches and agencies throughout the Empire of Japan.

A SHORT HISTORY OF COINAGE IN JAPAN

By DR. YOSHIMASA KOGA, F. C. S.,
Chief Assayer at the Imperial Japanese
Mint, Osaka

IN the most ancient times, ornamental stone beads, silk, linen, and grain appear to have served the purpose of money in Japan. Later, Chinese cash or coins were used as currency. In the reign of Temmu Tenno (673 A. D.) silver coins are said to have been current. The first authentic imperial coins, or cash, were, however, cast about 708. These are highly prized and called by numismatists the Twelve Ancient Cash. They are the following:

| | |
|---------------------|-----------|
| 1. Wa-do-kai-chin | 708 A. D. |
| 2. Man-nen-tsu-ho | 760 " |
| 3. Jin-ko-kai-ho | 765 " |
| 4. Ryu-hei-ei-ho | 796 " |
| 5. Fu-ji-shin-ho | 818 " |
| 6. Jo-wa-sho-ho | 835 " |
| 7. Chone-tai-ho | 848 " |
| 8. Nyo-yeki-shin-ho | 859 " |
| 9. Jo-kwan-ri-ho | 870 " |
| 10. Kwan-pyo-tai-ho | 890 " |
| 11. En-gi-tsu-ho | 907 " |
| 12. Ken-gen-tai-ho | 958 " |

A gap of six centuries separates the period at which the imperial coinage ceased and the period when national coinage was resumed. In the early part of this long interval grain, linen, and silk formed the bulk of the currency. Gradually, however, Chinese cash was imported and became the chief standard of value. Gold and silver in the form of small ingots or grains were also in use.



MR. H. IKEBUKURO, DIRECTOR OF THE
IMPERIAL MINT, TOKYO

The coins of Taiko (about 1588) were of gold and silver and became the nuclei around which the Tokugawa system of coinage was elaborated. In this latter system as it was first instituted in 1601, gold alloyed with silver in the form of thin oblong plates, and also of thicker rectangular plates, was struck with mint dies and made the currency by tale, while silver alloyed with copper was cast into small ingots of varying weights and stamped with mint marks. These were current by weight, instead of by tale as in the case of gold. It was, in fact, a peculiar case of bimetallism, if it may be so called.

In course of time it came to pass that the extravagance of the court or the exigencies of the state more than once placed the finances of the government on the brink of bankruptcy, and each time the temptation to replenish the coffers of the state by the debasement of coinage was too great to be resisted by the officials. In such a system of bimetallism the ratio of value assigned to the precious metals was not apparent to the uninitiated, and it was comparatively easy for the officials of a despotic government to multiply the number of coins at the expense of their intrinsic value, without danger of exposure. Accordingly, we find coinage ordered on no less than eight occasions in the course of 270 years of Tokugawa power. Each time standard coins dwindled in weight and fineness. The silver currency, which passed by weight, shared a similar fate, having the proportion of base metal increased, until finally the old standard of Keicho silver, which was 800 in 1,000,

found itself debased in Ansei silver to but 130 in 1,000. The coining of silver into pieces of definite weight began in 1765, and thenceforward a number of silver coins were issued, each issue witnessing a gradual diminution in weight.

The system of coinage in the last days of the Tokugawa government comprised the following coins:

| GOLD | FORM | VALUE |
|------------|-------------|---------------|
| Koban | Oblong | 1 ryo |
| Oban | Oblong | 10 and 25 ryo |
| Nibu-kin | Rectangular | 1/2 ryo |
| Ichibu-kin | Rectangular | 1/4 ryo |
| Nishu-kin | Rectangular | 1/8 ryo |

| SILVER | FORM | VALUE |
|------------|-------------|----------|
| Ichibu-kin | Rectangular | 1/4 ryo |
| Nishu-kin | Rectangular | 1/8 ryo |
| Ishu-kin | Rectangular | 1/16 ryo |

In this system silver in ingots, or shots, was valued at 1 ryo per 60 momme.

There is another set of gold coins, interesting in their having a general resemblance to the coins of Western nations. These are the so-called Koshyu-kin, round struck pieces, forming by themselves a series quite distinct from the standard coins of Tokugawa. They were current in the Province of Koshyu, or Kai, in the early period of the Tokugawa government, and were not the state coinage of the latter. Some of them were of an older date than the rise of Tokugawa.

We now turn for a moment to the later history of cash, which was the money *par excellence* of the people. The Tokugawa government put a stop to the use of Chinese or other cash, and in 1636 ordered the casting on a large scale of a new cash called Kwan-ei-tsu-ho. This cash was manufactured in various places and at different times down to about 1826. Iron cash of the same type as of copper was also cast and circulated in the declining days of Tokugawa. An oblong brass cash called Ten-po-sen, as well as round cash called Bunkyu-sen, were also current at the latter period.

As already described, the currency of the country at the time of the Restoration of the Imperial Government was in a state of chaos, and measures were taken without delay to establish a perfect system of imperial coinage. A single gold standard was adopted in the first coinage system, promulgated in June, 1871. In this system 1-1/2 gram of fine gold was made the unit of value called yen.

The coins were of fourteen denominations, namely: Standard gold coins, 900 fine: 20-yen,

10-yen, 5-yen, 2-yen, 1-yen; silver coins, 800 fine: 50-sen, 20-sen, 10-sen, 5-sen; silver coin, 900 fine: 1-yen for trade use; copper coins: 2-sen, $\frac{1}{2}$ -sen, 1-rin.

In the course of a few years the Government found it quite difficult to maintain the single gold standard, when the law was so modified as to have the appearance of a double standard, although as a matter of fact, silver became eventually the only standard. This state of things was continued until after the war with China, when the receipt of the war indemnity in gold made it possible for Count (now Marquis) Matsukata, then Minister of Finance, to successfully adopt the single gold standard in the new Coinage Law of March, 1897. By this change, the old gold coins were valued at double their face value, and a new series of gold coins nominally the same as the old, but weighing only one-half, was issued as the standard coins. No change was made in silver coins except that the 1-yen silver coin was demonetised. By this alteration, the old mint ratio of gold to silver was doubled, so that when in 1905 the market price of silver rose so far as to overreach the mint ratio, the Government was induced to reduce the weights of silver coins. This was effected by the amendments of the Coinage Law in April, 1906, in the case of 50 and 20 sen, and in March, 1907, in the case of the 10-sen coin.

A nickel coinage of 5 sen had been introduced into the coinage system in 1888. In 1897, bronze was substituted for copper coinage. Further, in 1916, a perforated nickel coinage was adopted by the Law of February



ENTRANCE TO THE IMPERIAL PALACE, SHOWING THE MOAT

20th, which also reduced the weights of bronze coins.

The weights, fineness, and diameters of the coins as at present issued are shown below.

COINAGE AND REFINING

ANY person may take his gold to the Imperial Mint for coinage, provided the weight of the bullion is over 100 *momme* (12,956 ozs. troy). The coinage is free for any amount. Usually on the third day after

the deposit at the mint, the depositor receives from the mint a memorandum on the out-turn of his gold, which is calculated according to the mint assay on the basis of one yen per 0.2 *momme* or 0.75 gram of fine gold. The depositor signs the deposit receipt and returns it to the mint, when he will receive in turn a coin certificate for the entire amount, which is payable at once at the Osaka branch of the Nippon Ginko (Bank of Japan).

Silver is coined into subsidiary coins only on government account.

When the bullion has to be parted and refined, it is subject to parting and refining charges for the silver content only, at the rate of from 0.20 yen to 0.74 yen per 100 *momme* of fine silver contained, the rate varying according to the proportion of base metal in the bullion. No bullion containing more than 50 per cent of base metal is received for parting. At the end of fifteen or twenty days, according to the amount, the silver parted is returned to the depositor, who disposes of this ingot as he may choose. The gold content in refinable bullion is paid for in coin certificate as in the case of gold deposit.

| METAL | DENOMINATION | WEIGHT GRAM | FINENESS PER MIL | DIAMETER MM. |
|------------------|--------------|----------------|---------------------|-----------------|
| Gold | 20-yen | 16.6666 | 900 | 28.8 |
| | 10-yen | 8.3333 | 900 | 21.2 |
| | 5-yen | 4.1666 | 900 | 17.0 |
| Silver | 50-sen | 10.125 | 800 | 27.3 |
| | 20-sen | 4.05 | 800 | 20.3 |
| | 10-sen | 2.25 | 720 | 17.6 |
| Nickel | 5-sen | 4.275 | Nickel, 250 | 20.6 |
| | (perforated) | | Copper, 750 | |
| Bronze | 1-sen | 3.75 | Copper, 950 | 23.0 |
| | | | Tin, 40 | |
| | 5-rin | 2.10 | Zinc, 10 | 18.8 |



HOUSE OF REPRESENTATIVES

X. THE CITY OF TOKYO

ORIGIN, HISTORY, AND DEVELOPMENT—THE NEW TOKYO—MUNICIPAL ADMINISTRATION—TOKYO FINANCE—FUTURE OF TOKYO—COMMERCIAL NOTICES

TOKYO, the capital of the Empire, is not remarkable for antiquity as that word is understood in Japan; for, down to mediæval times, Yedo, as the city was originally called, had not arisen above the level of a seaside hamlet, the ground whereon the city now stands being then a wilderness washed by the sea or occupied largely by marshes and lagoons. That the site in early times was frequented by primitive tribes is clear from the shell mounds and evidences of ancient sepulchre that have been unearthed in various wards of the city, but to what race or races these early inhabitants belonged it is now impossible to determine. All that is known of the origin of the settlement is that in the fifteenth century a tiny fishing village named Yedo, meaning *estuary gate*, was found standing on the shore near the mouth of the Sumida River. The headman of the hamlet was one Shigetsugu, a descendant of one of the eight great families of the Heiké clan, whose father was a henchman of the great Yoritomo at Kamakura, who then dominated the entire plain of Musashi. With the rise of the Hojo regency the military power began to shift from Kamakura to Odawara, and then Yedo was left to its own resources. Thereupon Ota Dokwan, a vassal of the Uyesugi family, seized the advantage to establish a fortress there, the forerunner of the shogun's palace, and of the Imperial Palace of to-day.

ORIGIN, HISTORY, AND DEVELOPMENT

DOUBLESS so expert a tactician and master at arms as Ota Dokwan selected the site for its strategic advantages, since it lay between the embouchures of three rivers draining the *hinterland* and having their sources in mountains which constitute natural battlements. A century and a half later the eagle eye of Hideyoshi easily perceived this and entrusted the place to the care of Ieyasu, head of the Tokugawa clan, who, when he became shogun in 1603, made Yedo the administrative capital of the Empire. The new government inaugurated important improvements in every direction, rapid development followed, and soon a great and flourishing city began to rise, absorbing the site of the former hamlet. The extensive swamps and marshes were drained by canals which still do valuable service in the city's system of drainage and communications; and large sections of the sea front were reclaimed, until the sea, which originally had its boundary at the present Hibiya Park, had receded to the limits now known as Tsukiki, half a mile away. No change, however, was more remarkable than that which was wrought in the palace of the shogun and its environs. Few sites would have seemed less favourable for the erection of a fortress than Yedo, for no stone suitable for the construction of battlements was within many miles, while the subsoil presented great

difficulties for foundations. Yet in a very few years, using forced labour and enlisting the competitive aid of feudatories, the shogun succeeded in constructing a castle surrounded by a double line of moats, the inner measuring 4,800 yards and the outer 8,700, and both having scarps and counterscarps composed of huge blocks of chiselled granite transported oversea from quarries some sixty miles distant. The scarps were crowned with lofty banks of greensward, over which drooped graceful pine trees, mirrored in the waters of the moat beneath. The water for these moats, as well as for the city itself, was carried by an aqueduct, a triumph of engineering skill, from the upper reaches of a river thirty miles away. The mansion of the shogun himself stood in a fair park within the inner moat, revealing, as the place still does, one of the most beautiful landscape gardens in the world; while all around the western boundary of the castle precincts the shogun had his feudal lords build their *yashiki*, or town villas, where they had to reside with their families one out of every two years, and always leave their wives there, as a guarantee of their loyalty to the shogun. This regulation bringing all the great barons to the shogun's capital was in itself sufficient to change greatly the appearance of the city; for they soon began to vie with one another in the erection of stately mansions and the keeping



VISCOUNT INAJIRO TAJIRI, MAYOR OF TOKYO

of large retinues of servants, living in imposing state. In Yedo now centred all the administrative and financial interests of the nation, and the prosperity of the city was assured. The floodtide of immigration to the shogun's capital became so great that it had to be strictly prohibited, and thousands were repatriated at the expense of the government to prevent congestion of population. In the centre of the city, surrounding the palace of the shogun, there was nothing but the beautiful landscape gardens of the barons; while all around them were the miserable hovels of the common people, with gorgeous Buddhist temples and mortuary shrines rising here and there to relieve the dead monotony of the insignificant and contemptible wooden huts of the lowly, whose unrequited toil had raised the endless walls of the shogun's fortress. Frequent conflagrations decimated the city, licking up the flimsy shanties of the poor as so much tinder; but the capital was always rebuilt on a more improved scale. Thus matters continued until the downfall of the shogunate, when the feudal barons were free to return to their estates, to which their retainers began to follow them, the two million inhabitants of Yedo dwindling almost to one-half that number. The beautiful mansions were demolished and the fair gardens turned to desolation, making blots to break the continuity of the once populous city.

THE NEW TOKYO

WITH the decision of the Emperor to make Yedo his new capital and the removal thither of the imperial residence came about a complete reversal of fortune to the city. The departing population began to return and newer and more wholesome prosperity to

prevail everywhere. Before the fall of the shogunate and the abolition of feudalism it had long been recognised that Yedo was a better site than Kyoto for the capital of the Empire, as being more centrally situated and less open to attack. The new government, therefore, had no hesitation in deciding to remove the capital from Kyoto; and when the young Emperor made his first visit to Yedo, in 1868, it had already been ordered that the name should be changed from Yedo to Tokyo, or Eastern Capital, in contrast with Kyoto, the old Western Capital. The following year His Majesty removed permanently to the new capital, and from that time rapid changes and improvements went on in all directions. Mansions, schools, official buildings, and great banks and shops began to rise all over the capital. A new municipal administration was established in 1872 and city boundaries were delimited, wards laid off, and a postal system inaugurated. Soon the dark streets of the capital began to be lighted with gas, and railways to run north and south, connecting with distant places. It was not long until all the appointments and conveniences of Occidental cities appeared in the new capital of Japan.

In the year 1917 Tokyo celebrated its jubilee as the capital of the Empire. One can not look back over those fifty years without being impressed by the remarkable changes that have taken place. There has been phenomenal advancement politically, commercially, socially, educationally and in almost every other way. A system of street widening has been carried out that could hardly have been possible outside of Japan, some of the main thoroughfares having been widened thirty feet for a distance of several

miles, which has greatly facilitated communication and improved the appearance of the metropolis. Dredging and riparian works of various kinds have been carried out on rivers and canals, and large sections of the sea front reclaimed; while the street railways have been taken over by the municipality, and the general administration of the city placed on a thoroughly modern basis. The two greatest needs, namely, a modern system of sewage and a good harbour, though under contemplation, have not yet been fully realised. Indeed, Tokyo for the most part has still the appearance of a city in transition from old to new. Its one hundred square miles of area are now occupied by some two and a half millions of people, filling the busy streets with scenes that present the old life and the new in vivid juxtaposition. On one street the eye falls on lines of houses in ancient style, lowly, sombre, and unattractive, with annexes of unshapely fireproof rooms for the safeguarding of valuables; while in the next street one sees handsome, lofty edifices of brick or stone, as imposing as are to be found anywhere. The patter and rattle of wooden clogs is drowned by the sweep of the electric tram or the rush of the overhead train, while the eye gazes at rows of old-fashioned, open-fronted shops with their unalluring array of strange goods, only to turn a corner and come upon great plate glass windows resplendent with foreign wares and exquisite examples of native art. In the distance looms the factory chimney, belching forth its black mass to stain the crystalline purity of the atmosphere that bathed old Yedo,—if at that time the city was less dusty than to-day. Without any proper system of watering the streets, when the wind is high the dust amounts to a veritable sandstorm



TOKYO MUNICIPAL OFFICE



NIHONBASHI-DORI, AS VIEWED FROM THE TOP OF THE MITSUKOSHI DEPARTMENT STORE, SHOWING NIHONBASHI BRIDGE IN THE FOREGROUND



MOAT OF THE IMPERIAL PALACE, SHOWING THE SUPREME COURT BUILDINGS IN THE DISTANCE

while the inhabitants, in desperation, with wooden ladles dip up putrid slime from the surface sewers and try to allay the dust, thus covering the streets with filth that soon in turn becomes dust to be again breathed before it can be allayed.

The following figures will show the growth of Tokyo during the last thirty years:

| YEAR | POPULATION |
|-----------|------------|
| 1887..... | 1,200,000 |
| 1897..... | 1,365,068 |
| 1907..... | 2,063,828 |
| 1917..... | 2,500,126 |

If, however, the population of the suburbs, not included in the city limits, be taken into consideration, the number of inhabitants would be well over 3,000,000.

MUNICIPAL ADMINISTRATION

DURING the three hundred years of its history the city has passed through various stages of development, each of which may fortunately be regarded as an improvement on the last; but it was not until within the last one hundred years that the municipality began to show any general disposition toward autonomy. In the days of the shogunate the

city was partly under the authority of the *bakufu*, as the administration of the shogun was called, and partly under what was known as the *machikaisho*, a body representing the property holders of each ward. This system was replaced by the *yeizenkaisho*, a sort of Board of Works, in 1873, which had the general supervision of the city's interests. After the city assumed the name of Tokyo in 1868 and became the Imperial capital, a municipal government was appointed, obtaining the governor's sanction for the election of city councillors and other officials. At this time the administration was divided into two branches: one for the discussing and planning of city improvements, and the other for executing such plans, as well as attending to the various departments involved in city government. Herein lay the germ of the modern municipal administration that later came into existence. Subsequently, when the city was placed under the management of the prefectural authorities, the development of autonomy received a decided check, but happily there soon took place a complete reorganisation of cities, towns, and villages throughout the Empire, when Tokyo again experienced further reforms insuring a greater degree of self-government. The citizens of Tokyo, however, were not yet satisfied with the degree of local autonomy conceded, and began to agitate for complete independence of municipal government, finally gaining the day, when a mayor was appointed and city aldermen and officials elected as in Western countries. The first mayor was the late Mr. Hideo Matsuda, who was succeeded by the Hon. Yukio Ozaki, followed by Baron Sakatani, Dr. Okuda, and the present mayor.

With modernisation of city government the modernisation of the city itself went on more rapidly and efficiently. A new City Assembly came into office, consisting of seventy-five members, who represented the will of the citizens, presided over by the mayor, and in addition there is the Municipal Council, which consists of the mayor, the deputy mayors, and members elected from the City Assembly. Each city ward has its own council as well, which decides all the business pertaining to the ward. The mayor has the general supervision and control of the whole city administration, and all subordinate powers do duty under him. The three deputy mayors have each several departments to supervise, as follows: (1) General affairs, education, finance, and street improvements; (2) Sanitation, water works, commerce, industry, and statistics; (3) Public highways, bridges, rivers, harbours, and construction and repairs. Other and independent departments are the Electric Bureau for the management of lighting and rapid transit, improvement of



HEADQUARTERS OF THE TOKYO METROPOLITAN POLICE

water supply, tree planting, asylums, hospitals, charities, and libraries; while various additional committees take into consideration such problems as appointment of inspectors of hygiene and sanitation, investigation of harbour and other improvements, education, commerce and industrial interests.

TOKYO FINANCE

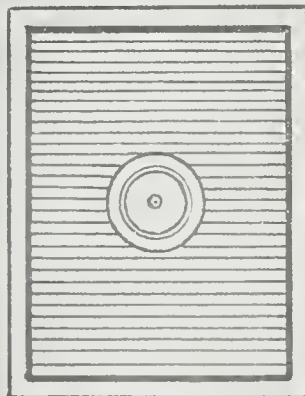
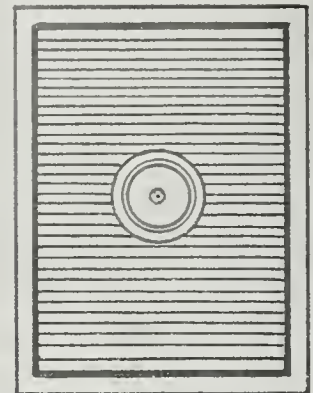
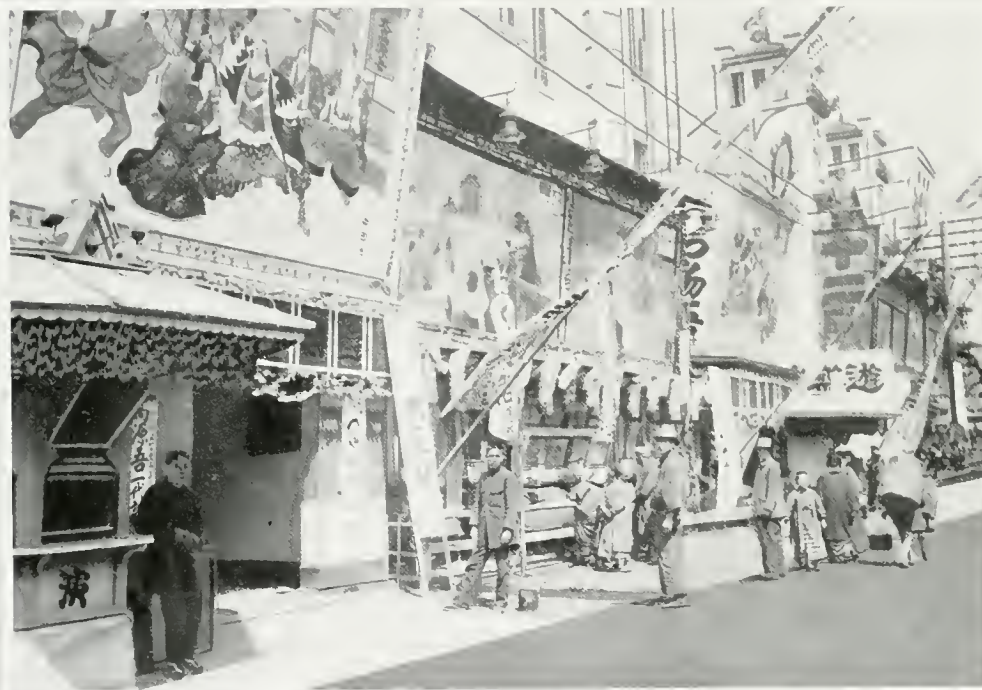
In recent years the finances of the city of Tokyo have shown remarkable expansion, especially since the war with Russia, thus keeping pace with the rapid development of the city; and although the outlay has more than doubled, especially since the acquirement of the city tramway system, the revenue has also greatly increased, and by curtail-

ment of expenses it is usually possible to meet the requirements. The fiscal statement last published shows a revenue of 34,607,143 yen, with an expenditure of 33,901,833 yen, which is quite a change from some years ago, as may be seen from the following figures:

| YEAR | REVENUE | EXPENDITURE |
|------|------------|-------------|
| 1899 | 6,254,246 | 3,355,340 |
| 1906 | 7,998,224 | 4,428,034 |
| 1912 | 91,671,016 | 83,178,348 |
| 1916 | 34,607,143 | 33,901,833 |

Though the finances of Tokyo show so great an expansion, owing to the municipalisation of the tramways and the extensive improvements undertaken, the burden of taxation has

not correspondingly increased, due chiefly to rapid increase in the wealth of the city, especially in property-value and population. Taxation has been further relieved by resorting to loans. In addition to the domestic loan of 1881 amounting to 10,000,000 yen for street improvements and the putting in of a modern water system, there is the foreign loan of 1907 amounting to 14,580,000 yen at five per cent, raised for riparian and street work; and a further foreign loan of 91,750,000 yen at five per cent for the purchase of the city tramways. Thus the present foreign indebtedness of the city is something over 100,000,000 yen, and a domestic loan of 10,000,000 was added in 1917. The bonds for city improvements are to be redeemed



THEATRE, ASAKUSA, TOKYO—MIDWAY TO ASAKUSA TEMPLE, TOKYO

within the next ten years by annual payments of 729,000 yen; while the tramway bonds will be all redeemed within thirty-six years by annual redemptions to the value of 5,495,000 yen. For other much needed improvements, such as the extension of the water system and the tramway lines, the putting in of a modern sewage system, improvement of streets, dredging of rivers and reclaiming of lands, the erection of school buildings and numerous other essentials of modern progress, the city authorities are forming a reserve fund, to which will be added each year's surplus revenue. The citizens of Tokyo have, nevertheless, to bear a weight of taxation at least two and one-half times greater than it was ten years ago, as may be seen from the following table, which includes city tax only and not prefectural tax, equal to about as much more:

| YEAR | ADDITIONAL TAXES | SPECIAL TAXES | TAXES FOR STREETS | TOTAL |
|------|---------------------|------------------|----------------------|-----------|
| | Yen | Yen | Yen | Yen |
| 1898 | 760,000 | ..... | 347,000 | 1,108,000 |
| 1905 | 856,000 | 116,000 | 345,000 | 1,318,000 |
| 1910 | 2,113,000 | 588,000 | 671,000 | 3,373,000 |
| 1915 | 1,605,000 | 520,000 | 691,000 | 2,817,000 |

The figures in the following table will indicate the items in revenue and expenditure for Tokyo in 1916:

| ITEM | REVENUE | EXPENDITURE |
|---|------------|-------------|
| | Yen | Yen |
| City general account..... | 5,619,793 | 5,619,793 |
| Employment agencies..... | 8,150 | 8,000 |
| Workhouses..... | 209,259 | 209,259 |
| Labour industries..... | 38,360 | 31,860 |
| Reclaimed land..... | 347,331 | 118,338 |
| Street improvements..... | 1,151,819 | 1,151,819 |
| Sewage system improvements..... | 1,007,067 | 1,007,067 |
| Sewage and riparian improvement fund..... | 1,500,358 | 1,500,358 |
| Waterworks..... | 4,688,617 | 4,688,617 |
| Public works loan..... | 1,206,753 | 748,784 |
| School buildings..... | 827,339 | 827,339 |
| Special fund..... | 16,725 | 4,927 |
| Fire relief fund..... | 64,760 | 64,760 |
| Electric railways..... | 11,511,001 | 11,357,463 |
| Electric lighting..... | 2,545,851 | 2,699,389 |
| Electric works property..... | 3,863,950 | 3,863,950 |
| Total..... | 34,607,043 | 33,901,833 |

FUTURE OF TOKYO

THE development of Japan's capital into a completely modern city depends largely on how effectively the six great enterprises which the authorities have in view can be carried to completion. These consist of (1) a Water System adequate to the needs

of the whole city; (2) a Modern Sewage System in accordance with the laws of sanitation; (3) a General Improvement of city streets, putting down proper pavements and sidewalks, with facilities for allaying dust; (4) Harbour Construction; (5) Electric Tram Extensions and Lighting Services, and lastly, (6) Improvement in Facilities for Relief and Moral Reform of the Defective.

The present water system of Tokyo, based on an old one constructed three hundred years ago, which brings water from the Tama River over a course of some thirty miles through an old canal, is quite inadequate to the needs of modern Tokyo. The total length of distribution piping in the city is about five hundred miles, supplying about 1,500,000 people. The amount spent in construction of the system so far is about 10,000,000 yen; but to carry out the exten-

sions contemplated a further outlay of 20,000,000 yen will be required, as nearly two hundred miles of streets have still to

be laid with submains. The work is to be completed within the next seven years.

Perhaps Tokyo's most crying need is a modern sewage system. At present most of the city is drained by surface sewers, though underground mains have been laid in certain important sections of the city. The new sys-

tem is estimated to cost about 40,000,000 yen and will take ten years to complete, the expense to be met by loans, government subsidy, and taxes.

Though much has been done on the way of street improvement the majority of the city's streets are still narrow and without sidewalks. There are some six hundred miles of streets, ranging from fifty feet to a few yards, the average width being about nine yards. Some three hundred miles of these streets have been singled out for widening, but the process goes on very slowly. The work is hampered by lack of funds and the high price of land. Most of the streets so far broadened have been for the purpose of affording facilities for electric tram extensions. In the course of the last twenty years Tokyo streets have been embellished with miles and miles of cherry trees, and now such streets are not only shady in the hot months of summer but bathed in an atmosphere of pink and white bloom in April. A marked feature is that all the houses visible to the eye are the small dwellings of merchants and the office buildings that dominate them, the more beautiful residences being all packed away behind walls where no one but the owners can ever get a glimpse of them. Nowhere are to be found public parks surrounded by the mansions of the great; nowhere are to be seen the residences of gentlemen forming any integral portion of the city. The higher classes of Japan segregate themselves from the common people as much as possible.

Nothing, perhaps, has produced a greater change socially and in many other ways in Tokyo, than the electric tram system, taken over by the city from the private companies in 1911. The car lines, traversing as they do the main thoroughfares of the capital, necessitated the pulling down of many old buildings, the erection of new ones, as well as the straightening and widening of the streets; while the enormous increase in traffic and population, brought about by improved facilities of locomotion and cheap fares, has resulted in a great extension of labour, trade, and social intercourse. In the old days the inhabitants of one section of the vastly spread-out city knew little or nothing of the people of other parts of the city. Travel, being expensive, was not much practiced. Now for the small fare of five sen the poor can be carried to any part of the city, and the labourer's residence is independent of his place of work; and the consequence is a rapid extension of the city toward the suburbs, the present rate being over 114 per cent annually. The present mileage of tramway is about 160, and in the near future some 200 miles in all will have been



(Left) Mr. S. TAKATA, President of the Well Known House of Takata & Co.—(Upper, Centre) Baron K. OKURA, President of the Important Firm of Okura & Co., Ltd., Tokyo—(Lower, Centre) Mr. K. MURAI, Director of the Meiji Trading Co., Ltd., and President of the Murai Bank, Ltd.—(Right) Mr. BUEI NAKANO, Late President of the Tokyo Chamber of Commerce, an Enterprising and Progressive Business Man

laid down. The number of passengers carried per day is about 674,000, the average daily income from passengers is about 24,000 yen, and the average rides per unit of the city population annually are 110. In further extension of ways and lighting the sum of 18,000,000 yen is to be expended.

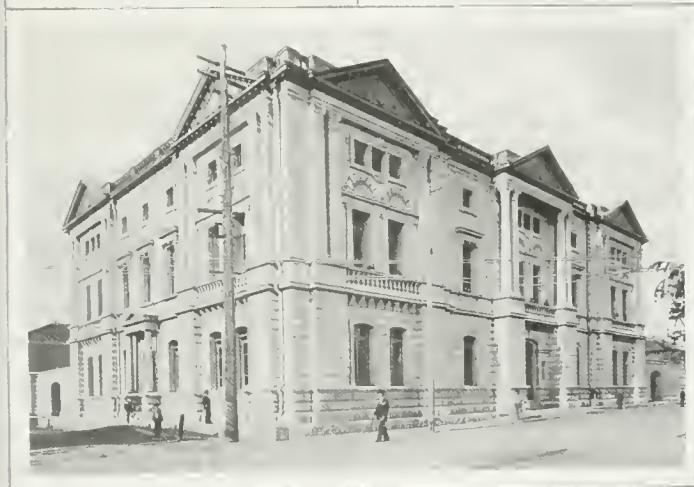
Elaborate plans are under way for the construction of a harbour for Tokyo, but for lack of funds these have so far been postponed. The scheme involves an outlay of 36,700,000 yen; and in 1914 the Harbour Works Committee passed a resolution to spend the sum of 6,580,000 yen as an initial outlay spread over four years, the limit of outlay to be 20,000,000 yen in all. There is to be an inner and an outer harbour with connecting canal, the inner to have an area of over 4,000,000 square feet and a depth of from 15 to 25 feet.

In the matter of charity and poor relief Tokyo is not very well off, there being but one almshouse, a city infirmary, a municipal

labour exchange, and no hospital for the insane. In Japan, as a rule, the poor and the insane have to be cared for by their friends, and sometimes dangerous lunatics are left to commit appalling outrages. In connection with the almshouse there is a reformatory for incorrigibles, and the city also has a home for orphan children, which has about 2,000 inmates. The reformatory receives some 150 children annually. The city further maintains a sanatorium at Awa for sick homeless children, which takes care of over 120 little ones in a year. The Tokyo Charity Hospital affords treatment to some 14,000 patients annually. At the Municipal Labour Exchange those out of work or lodgings can be taken care of over night and be provided with something to do. It shelters about 100 lodgers a night and receives about 13,000 applicants for work every year. The city has no lunatic asylum, but entrusts its insane to private institutions if they are dangerous enough to need restraining, the

average number in care of the city being about 500 out of a total of over 800 in the municipality.

Tokyo has a great many places of historic and scenic interest, but it would require a volume to recount all that could be said about them. Its palaces, mansions, embassies, schools, government buildings, and theatres can be no more than mentioned. The great banks, commercial and manufacturing companies of the capital will be found duly noticed elsewhere in this volume. Tokyo clubs, hotels, and restaurants are a feature of some interest, too. There are three foreign hotels at present; and there is to be a new Imperial Hotel which will be the finest in the Far East. The shrines, temples, parks, and bridges form another unique feature of Tokyo. The city has some sixty canals crossed by hundreds of bridges; and the famous Nihonbashi, or Bridge of Japan, is in the heart of the metropolis, all points in the Empire being measured from there. The



SHANGHAI BRANCH OFFICE OF THE MITSU BISHI COMPANY—MITSU BISHI 21ST BUILDING—KOBÉ BRANCH OFFICE OF THE MITSU BISHI COMPANY—MITSU BISHI BANK BUILDING AND GENERAL AFFAIRS DEPARTMENT, TOKYO (SEE DESCRIPTIVE ARTICLES IN SHIPPING SECTIONS, XI AND XLII)

three great lungs of the city are Shiba Park where stand the tombs of the Tokugawa shoguns, Ueno Park which was formerly a temple enclosure, and Hibiya Park which is the only one laid out after Western fashion. There are eighteen other parks of smaller extent, and the authorities frequently promote the extension of open spaces in the city. As the Imperial Capital, Tokyo is the gayest spot in all Nippon, with every form of entertainment and pleasure that the human mind can desire or devise. Geisha and other pleasure houses abound; and the night is turned into day with feasts and *fêtes* of every description. The night side of the capital is a theme in itself, though more of interest than edification. As the Japanese do not entertain in their homes, the city restaurants do a thriving business, and professional entertainers usually are in great demand. There is a huge wrestling theatre in the centre of the city, built of stone and ribbed steel, capable of accommodating thousands of spectators to see the semi-annual exhibitions and contests of the great national game. In Tokyo, every month has its round of feasts and festivals,—religious, floral, or having patriotic associations.

THE MITSUI BUSSAN KAISHA

As a great commercial and financial house, the Mitsui Bussan Kabushiki Kaisha, or Mitsui & Co., Ltd., the English equivalent of the Japanese name, can certainly take rank with the largest and most influential enterprises in any part of the world, and in point of age it antedates most of the best known of old family merchant houses. The foundations of the enormous business now controlled by this company were laid over two centuries ago by Takatoshi Mitsui, who founded the Mitsui Exchange House at Osaka, Kyoto, and Yedo (now Tokyo), and really established the first banking system of Japan. The Mitsui Bank is to-day one of the leading financial institutions of the Empire, with a capital of Yen 20,000,000 and deposits of well over Yen 124,000,000.

In a general review of Mitsui & Co., Ltd., it is not possible to go into every detail of the operations of the old established house, unless the writer is to take much more space than is at his disposal. The Mitsui Bank, great institution though it is, is only one phase of the company's enterprises. There is also the Mitsui Kozan Kaisha, with a capital of Yen 20,000,000, engaged in mining on a huge scale, and there is the better known Mitsui Bussan Kaisha, or trading department. This latter is run as a distinctly separate undertaking from the Bank and the Mining Company, though of course, the guidance of all three is in the hands of the Mitsui family,

which has maintained control of the entire business through the two centuries that have elapsed since the foundation of the old Mitsui Exchange House, or Bank.

The Mitsui Bussan Kaisha, or trading company, is in itself a huge and widely ramified merchant undertaking, the business comprising practically every line of trade conducted either in Japan or between Japan and foreign countries. This separate branch of the Mitsui interests was formally organised in 1876, the firm putting its power and resources into the new concern to make it one of the most powerful and influential commercial organisations in the Empire. That the effort has been extraordinarily successful, nobody who knows the commerce

and industry of Japan can deny. What this success really signifies may be seen from the statement that close upon 25 per cent of the entire foreign trade of Japan is handled through the Mitsui Bussan Kaisha, and although the company has its own fleet of over twenty modern steamers, it is still one of the biggest buyers of freight space in the world, the list of chartered vessels alone running into scores.

The company is the leader in the raw silk trade of Japan, shipping nearly 100,000 bales in the course of the year. In the coal trade, also, the Mitsui Bussan Kaisha is pre-eminent. The company controls half a dozen of the best collieries in Japan, and in 1916 handled 8,500,000 tons of bunker and cargo



NIHONBASHI STREET, TOKYO. OFFICES OF THE MITSUI GINKO, THE MITSUI GOMEI KAISHA, AND THE MITSUI BUSSAN KAISHA ARE SEEN ON THE LEFT. THE PALATIAL MITSUKOSHI STORE RISES ON THE RIGHT



PRESIDENT AND DIRECTORS OF THE TOKYO STOCK EXCHANGE

(Upper Row, Left to Right) Mr. SHIMPEI TSUNODA, Vice-President—Baron SEINOSUKE GOH, President—Mr. RAITA FUJIYAMA, Director, and President of Tokyo Chamber of Commerce.

(Lower Row, Left to Right) Mr. UNOSUKE YAMAGUCHI, Director—Mr. TAHEE MAYEKAWA, Director, and President of the Bank of Tokyo—Mr. KOMANOSUKE EGUCHI, Director.

coal, or approximately 40 per cent of the entire output of the country. It is to be expected that such a huge and well organised concern would have been the pioneer of many branches of Japan's foreign trade. This is so, for the Mitsui Bussan Kaisha was the first to export the highest class of Japanese rice, in which they do an international business. They were the first exporters of Manchurian beans to Europe, and also introduced Hokkaido lumbars to America and the Continent. The company also claims to have been the first house to bring American and Indian cotton into the Japanese market, and they are now recognised as the largest buyers of this staple.

The import business is conducted on the same huge scale as the export of Japanese natural and manufactured products. In the list of imports one finds steamers, ordnance, locomotives, steel bridges, rails, electric and

other machinery, metals of all kinds, wheat, flour, foreign rice, and in fact every line of merchandise that is required in Japan. The many subsidiary enterprises conducted by the company include the operation of a cotton mill at Shanghai, in conjunction with influential Chinese capitalists, various vegetable oil factories and so on. Throughout Japan proper and Chosen and South Manchuria, the Mitsui Bussan Kaisha is very strongly represented, the branch houses in each important commercial centre practically controlling commerce and industry in their respective territories. Abroad, the Mitsui Bussan Kaisha maintains its own offices in such cities as London, New York, Lyons, Petrograd, Vancouver, Singapore, Bombay, Calcutta, Shanghai, Sydney, and San Francisco. The head office is in Tokyo.

The Directorate of the Mitsui Bussan Kaisha comprises Messrs. Genyemon Mitsui,

President; Yonosuke Mitsui, Managing Director; Dr. Takuma Dan, Messrs. Senkichiro Kayakawa, Kikusaburo Fukui, Masajiro Fujise, and Sutejiro Odagaki. The Auditors are Messrs. Takakiyo Mitsui, Sankichi Komuro, and Tomoyoshi Mashima.

MITSUKOSHI

MITSUKOSHI, the greatest and most famous Department Store in the Far East, where everybody goes for everything and gets it, was started as an enterprise of the noted Mitsui family, whose commercial history goes back some three hundred years. A family whose business integrity and efficiency has commanded the respect and confidence of a nation for so long is naturally successful in its enterprises, and none of its ventures has been more so than this vast emporium of retail trade known as the Mitsukoshi. No one visiting Tokyo thinks the city has been



NIHONBASHI BRIDGE, OF INTEREST AS THE CENTRE OF TOKYO AND THE POINT FROM WHICH ALL DISTANCES IN JAPAN ARE MEASURED

fully explored without spending half a day at the Mitsukoshi, where everything needed in the ordinary course of life can be purchased. Constructed of beautiful white brick, the Mitsukoshi has an imposing exterior in Renaissance style, with two great bronze lions guarding the main entrance, modelled after those at the base of Nelson's pillar, London; while the interior, finished and furnished in the most palatial manner, for convenience and general accommodation combines the best features of such great stores as Selfridge's in London and Wanamaker's in Philadelphia, together with some unique Japanese adaptations that make for native efficiency and comfort. On entering the emporium Japanese footgear is removed and slippers put on, while foreign boots are covered with overshoes supplied at the door and easily slipped on; for the floors of this commercial palace are covered with soft, clean native matting, which must never be soiled. Indeed, one of the most remarkable features of a visit there is to see hundreds of gay ladies and gentlemen moving noiselessly about the spacious departments engaged in

the most interesting of all occupations, that of purchasing the best for the most reasonable price and getting just what is wanted. The grand court leading from the main entrance at once gives an impression of expansiveness and refinement, with its lofty pillars, decorated balconies, and great central dome in richly colored glass, the general tone being cream and white, while in the distance the eye rests, charmed, on the magnificent flights of marble steps leading up to the various floors. All about are waiting floor-walkers and clerks to afford every courtesy in giving information, the guest being at once personally conducted to any department desired. The appointments of the Mitsukoshi Department Store are among the latest that science and invention have produced, including fire-proof structure, a mail chute and lifts for the convenience of customers, pneumatic cash and parcel tubes, modern ventilation, automatic sprinklers, smoking room, tea room and up-to-date restaurant. The main floor of the building is chiefly occupied with travellers' requisites, such as toilet articles, perfumes, gentlemen's furnishings, boots and

shoes, trunks and bags and provisions of all kinds, domestic and foreign. Here also is an office for the purchase of wedding presents, for which there is always an immense demand on Mitsukoshi; and if one fails to make a choice, a commercial money order can be purchased and sent to the bride so that she may make her own choice. The second floor is given over to dress materials of every texture and pattern. Here the exquisite silk and other fabrics from Japanese looms may be seen to better advantage than possibly anywhere else in the world; and from the time the store opens until closing time the *élite* of Tokyo, in their matchless native gowns or *kimono*, may be seen moving silently about like fairy beings, to the intense interest of the foreigner. There is perhaps no better place in Japan to see the wealth and beauty of the land. The third floor is devoted to things foreign, especially tailoring, jewelry and so on, while the fourth floor has a fine selection of foreign and native furniture, all made in Japan, and as select and artistic as can be seen in New York, London, or Paris. On this floor also is situated the children's



VIEW OF NIHONBASHI-DORI, FROM THE TOP OF THE MITSUKOSHI DEPARTMENT STORE

department with every kind of toy imaginable. After doing three floors of this immense space one feels inclined toward refreshments, and a fine room for this purpose is near at hand, with every viand that the appetite can crave. The fifth floor is taken up with objects of fine art, where one can examine and purchase such national masterpieces in sculpture, painting, lacquer, porcelain, pottery and metal work as can seldom be found elsewhere. Here art exhibitions are frequently held and lectures given by authorities on their various subjects. Above all is the famous Mitsukoshi roof gar-

den, in beautiful native landscape style, where from June to September tea is served and a band plays daily to the delight of the happy, talking crowds that frequent it. From the roof garden one may have a matchless view of the great city, in the centre of which the Mitsukoshi store stands. To witness the numbers of gay Japanese ladies at the Mitsukoshi restaurant or in the roof garden, and hear the band rendering its classical or native airs, is to realise that in Japan shopping is not the solemn, anxious thing that it appears to be in some countries. All goods purchased are delivered promptly

anywhere the customer desires. Thus the great store, founded in 1673 by the greatest of Japan's merchant princes, has gone on prospering, enjoying the patronage of princes and nobles and even of the Imperial Family, as well as people of all ranks and countries, until to-day, with its thousands of employees and its vast array of the best that Japan and all other countries can produce, it has become the greatest single public supplier in East Asia, with branches in various parts of the Empire and its colonies. It is difficult to calculate the influence of one such great institution as this.





TRANS-PACIFIC LINERS MOORED AT THE YOKOHAMA DOCKS

XI. SHIPPING

(YOKOHAMA AND TOKYO SECTION*)

HISTORY OF JAPANESE SHIPPING—THE MODERN ERA—THE POSITION BEFORE THE WAR—
LEADERS OF THE INDUSTRY—CAPITAL INVESTED—GOVERNMENT SUBSIDIES—
THE SHIPBUILDING INDUSTRY—HARBOURS—
COMMERCIAL NOTICES

IF sea power is a necessary corollary of national greatness, then in no other respect has Japan made such tremendous strides toward national grandeur as in her attainment of sea power. It is indeed questionable whether any nation in history has ever developed such marine strength so rapidly as Japan has done, and this is true both of her war fleets and her merchant marine. Her navy ranks in fighting strength amongst the first five of the world, and her merchant fleet must be the third strongest. On this latter point, however, no conclusive statistics are available during the war. We can only approximate Japan's position from figures given by world authorities up to the end of 1915, and from general facts disclosed since then regarding the shipbuilding programmes of the various nations. When these facts are related, and reasonable conclusions are derived from them, it will be recognised that Japan's position among the maritime powers, considering the brief time that has elapsed since she set out to have a merchant fleet, is quite as wonderful as any other

feature of her evolution from Oriental isolation and obscurity, to her present status as a modern nation.

HISTORY OF JAPANESE SHIPPING

It is hardly necessary to state reasons why Japan should naturally be a great maritime power once she elected to march with other nations along the path of progress. We have only to realise that the people are islanders, and to take cognisance of certain other historical and ethnological and geographical facts, to understand that every element of maritime greatness was at least latent in the case of Japan.

The origin of the Japanese people has not yet been clearly defined, but that they were a seafaring race as far back as the time when they became a distinct people, apart from the mass of human beings, there is no reason to doubt. Whether, as some scientists suggest, they came from the islands of the Southern Pacific, or whether they migrated from nearer lands, the spirit of adventure was in them, and they must have

possessed as sound a knowledge of the art of navigation of those times as any other Oriental race possessed. We may, at least, imagine the great armada of rude junks, or *sampans*, in which they set out to conquer the islands, then inhabited by the Ainu or more savage tribes, and at once our imagination suggests a hardy Viking spirit, that must in the fullness of time disclose itself in a fondness for the sea, and the capacity to do and dare on the trackless ocean.

Two thousand years ago the Japanese were sea-rovers. That indisputable fact is traceable in Oriental history. They were quite as capable navigators as the Chinese, and they fared forth as far as the Chinese ever did either in search of trade, or as bold sea robbers. The Japanese navigators of those times penetrated as far south as the Malay Archipelago, and it is more than probable that they also voyaged to India. Later the nation carried on organised sea war, and in the early history of Japan there are records of more than one expedition to Korea, and other parts of the mainland, to make war,

*See page 717.

or to sustain Japan's national interests in other ways. In the sixteenth century, the Dutch and Portuguese found the Japanese to be a sea-faring people, their coasts being thronged with junks, and some degree of trade being maintained between the islands and the mainland. The arrival of the European ships aroused great interest amongst the Japanese, who were not slow to recognise the superiority of the three-masted, high-decked and castled galleons of the Dutch and Portuguese. The Japanese were also impressed with the skill of the foreigners in the management of their ships. There is in the Tokyo Imperial Museum an old painting by a Japanese artist depicting a scene which can only be representative of the arrival of a Portuguese or Dutch ship, and the landing

of goods for trade. The artist has with fair accuracy portrayed the general appearance of the vessel, and her rigging, but has allowed free rein to his imagination of the agility of the crew. Sailors are shown among the ropes and up the shrouds in all manner of extraordinary acrobatic feats. One man is hanging by his toes, another is proceeding hand over hand from the mizzen to the main, and a third, rivalling any modern rope walker, is airily waltzing along a stay at a dizzy height.

The first lessons received by the Japanese in shipbuilding according to European ideas were given by the Dutch, some of whom settled at Nagasaki, in the service of the Japanese authorities of the time, and taught the art of ship construction. There are even

now one or two Japanese yards which were originally established at that time, and received state aid or influential patronage in order that they might build modern ships. But this foreign influence upon Japan was only passing. Reaction against European civilisation set in, and Japan lapsed once more into seclusion, all intercourse with foreigners being forbidden, and the benefits of the brief period of acquaintance with Western civilisation being nullified by official insistence upon an entire reversion to native ideas. Thenceforward, until the arrival of Commodore Perry's fleet in 1854, the Japanese, except those of the northern, or other far distant fishing villages, never saw a modern ship. Whaling vessels sometimes touched at Hakodate, but their reception



SHIPPING MAGNATES

(Upper Row) Mr. RYOSU ASANO, Director, Toyo Kisen Kaisha—Mr. K. HORI, President, Osaka Shosen Kabushiki Kaisha—Mr. J. YAMAOKA, President of Osaka Chamber of Commerce and President of Osaka Iron Works.

(Middle Row) Mr. J. ITAMI, Co-Managing Director, Nippon Yusen Kaisha—Mr. SOICHIRO ASANO, President, Toyo Kisen Kaisha, Asano Shipbuilding Yard, Ltd., and Asano Portland Cement Co., Ltd.—Baron R. KONDO, Japan's Foremost Shipping Magnate, President, Nippon Yusen Kaisha and the Nisshin Kisen Kaisha—Mr. K. MATSUKATA, President, Kawasaki Dockyard Co., Ltd.—Mr. Y. ITO, Managing Director, Nippon Yusen Kaisha.

(Lower Row) Mr. K. NAKASHIMA, Director, Toyo Kisen Kaisha—Dr. T. SUDA, Vice-President, Nippon Yusen Kaisha—Mr. Y. KAWASAKI, Vice-President, Kawasaki Dockyard Co., Ltd.

was so unfavourable as to compel the United States to despatch Perry to try to negotiate for better treatment on the part of the Japanese.

THE MODERN ERA

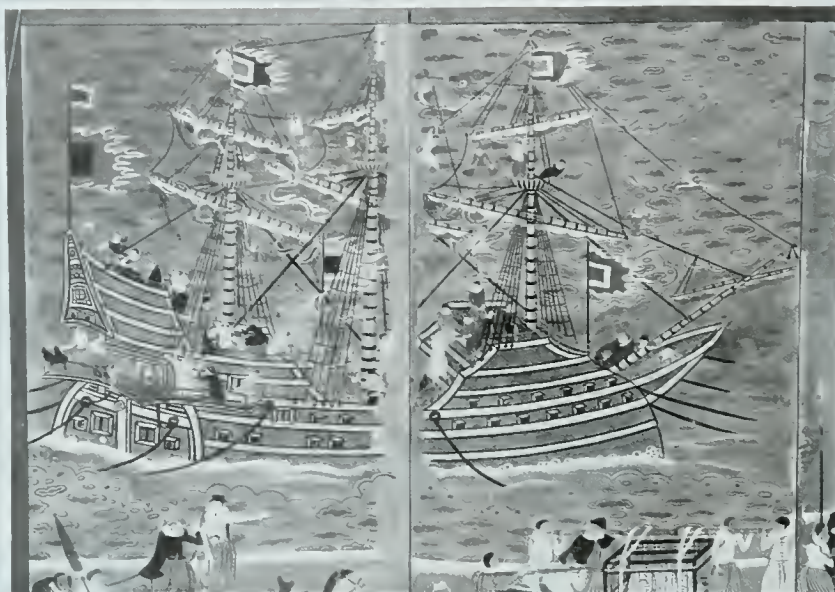
AFTER the opening of the treaty ports to foreign trade in the late fifties, the Japanese soon began to aspire to the possession of modern sailing vessels and steamships.

schools were opened, and students were sent abroad to learn engineering and navigation. Still for the first twenty years of Japan's modern history as a maritime nation, it was a rare thing to find Japanese in command of even the smallest vessels, most of the shipmasters being British, Scandinavian, or American.

The growth of the Japanese mercantile marine kept pace with the development of

companies were rapidly drifting toward bankruptcy. An amalgamation of most of these coastal shipping concerns was effected in 1884 when the Osaka Shosen Kaisha, one of the three largest Japanese shipping companies to-day, came into existence. It was also about this time that the Nippon Yusen Kaisha was formed to open up foreign services, the inducement offered by the Imperial Government being the granting of subsidies under conditions that insured the enterprise being entirely Japanese.

To trace every step in the development of the splendid merchant service which Japan has is not possible within the scope of this article, nor is it necessary to deal with the various legislative enactments by which the Government has directed the shipping policy of the country. It is sufficient to say that the Government has always maintained the closest control over and direction of the shipping industry, and has pursued a simple policy of creating a merchant marine entirely Japanese in every detail. Navigation schools are maintained, both ashore and afloat, and there are engineering colleges and similar institutions in which the highest technical training is afforded. Perhaps more in Japan than in any other maritime country is this matter of training for the sea a state business. By means of subsidies and special considerations of other kinds a big oversea traffic was built up before the war. One of the first legislative steps taken for the protection of Japanese shipping firms was, of course, the shutting out of foreign vessels from all coastal traffic, as is the case in the United States and some other countries.



A SCREEN UPON WHICH ARE DEPICTED THE FIRST IMPRESSIONS OF A JAPANESE PAINTER OF THE ARRIVAL OF A FOREIGN TRADING VESSEL IN THE SEVENTEENTH CENTURY. IN THE IMPERIAL MUSEUM, TOKYO

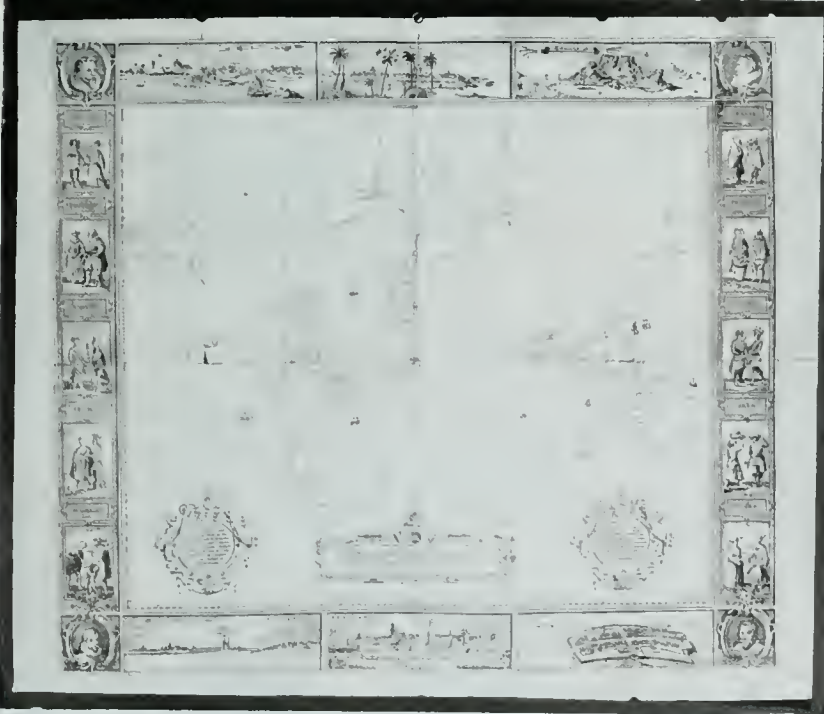
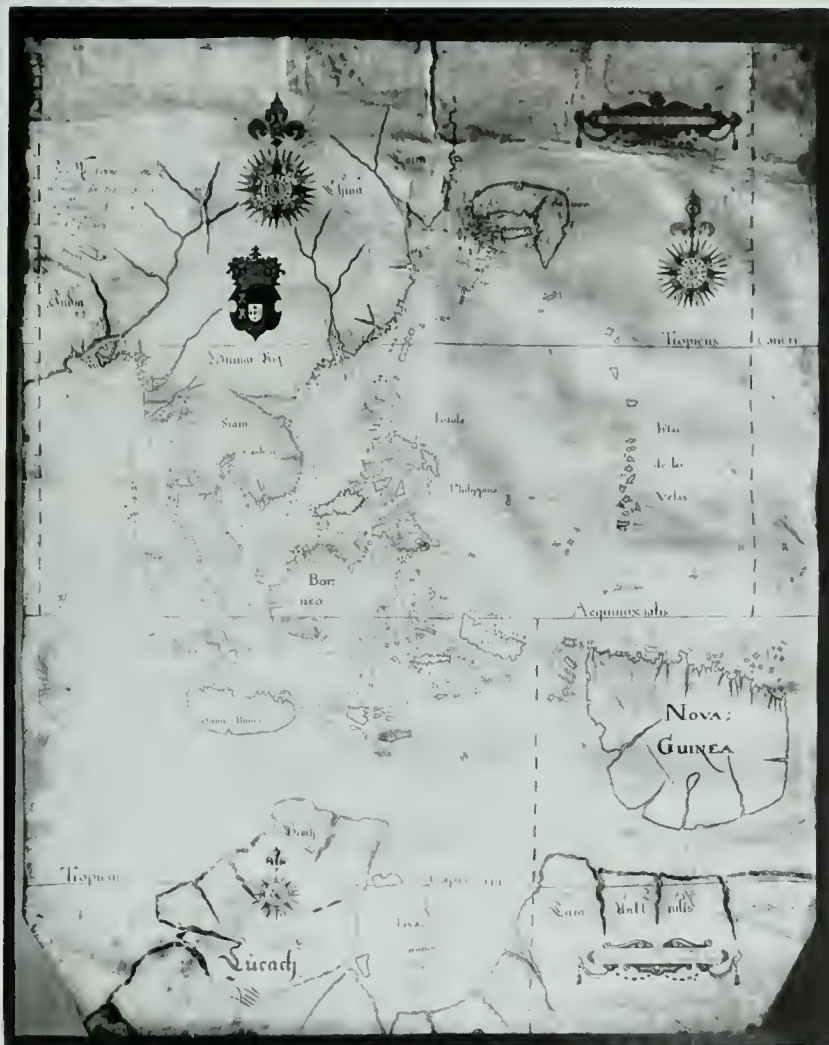
The era of enlightenment began with the reign of the late Emperor Meiji in 1868, and one of the first things decided upon was that Japan must possess a merchant marine. Already there were in existence a number of firms, or private owners of ships, the vessels being acquired from foreigners and being manned by them. Some of the Japanese merchants who had a keen eye to the future developments of the shipping trade, entered upon rather extensive purchases for those times. The more ambitious of them tried the experiment of officering their ships with Japanese, but the results were frequently disastrous, and it was soon recognised that there was a vast difference between owning a ship and successfully running it. It was then that the Japanese Government took up the problem of fitting its own people for the ownership and management of modern ships. Foreign shipmasters were engaged for the dual purpose of commanding Japanese-owned steamers, and for training young Japanese to become officers. Government nautical

the foreign trade of the country. With their natural quickness to assimilate new ideas the Japanese were apt pupils of their foreign teachers. The Government and the merchants sensed the great possibilities before the shipping industry, and there was also a strong urge of pride toward the building up of a merchant marine that should be solely and wholly Japanese in all respects. Up to about 1880 Japan's merchant service consisted almost entirely of small vessels, more or less antiquated, and practically little or no overseas trade was done in Japanese bottoms. The shipping industry flourished in coastal waters, particularly in the Inland Sea, and from 1875 on many new companies came into existence, to compete for the waterborne traffic from port to port. The competition became so keen, and freights were cut so low, that presently the Government had to demand the cessation of the rate war. Ships were under-manned, so badly out of repair and so recklessly run that serious accidents were common, and the various

THE POSITION BEFORE THE WAR

THIS brief and hurried survey of the growth of Japan's merchant marine has brought us down to the period just before the outbreak of the European War. Some idea of the development of Japan's shipping interests is obtainable from the following table, showing the leading maritime nations in 1900 and 1915:

| NATION | TONNAGE 1900 | TONNAGE 1915 | INCREASE PER CENT |
|------------------|-----------------|-----------------|----------------------|
| 1. Great Britain | 14,261,254 | 21,274,068 | 49 |
| 2. United States | 2,750,271 | 5,892,639 | 114 |
| 3. Germany | 2,650,033 | 4,706,027 | 78 |
| 4. Norway | 1,640,812 | 2,529,188 | 54 |
| 5. France | 1,350,562 | 2,285,728 | 69 |
| 6. Japan | 574,557 | 1,826,068 | 218 |
| 7. Italy | 983,655 | 1,736,545 | 77 |
| 8. Holland | 530,277 | 1,522,547 | 187 |
| 9. Austria | 416,084 | 1,018,210 | 145 |
| 10. Sweden | 637,272 | 1,122,833 | 76 |



In this list Japan stood sixth, and showed the greatest percentage of increase in the fifteen years. What her position is to-day can only be roughly estimated. She has been building and buying ships as fast as she could throughout the war, and her losses by submarine warfare have been very slight, so that she must be in a much better position in the scale of ship-owning nations than she was two years ago. At the end of September, 1917, the Department of Communications, which is responsible for the control of shipping, reported that there were 308 tramp steamers aggregating 805,405 tons. To that figure must be added all the tonnage of such great passenger and mail lines as the Nippon Yusen Kaisha and the Toyo Kisen Kaisha, as well as the tonnage engaged in the coastal and general passenger and freight trade, the Department's figures applying solely to those vessels which shipping men know as "tramps," or ships with a kind of roving commission, *i. e.*, not plying regularly on any particular ocean service. If Germany's merchant marine be eliminated from calculations, Japan must to-day stand third amongst the maritime powers, and her tonnage would be little short of 2,500,000.

LEADERS OF THE INDUSTRY

THE three leading shipping firms of Japan are the Nippon Yusen Kaisha, the Osaka Shosen Kaisha, and the Toyo Kisen Kaisha. The two former are the oldest of the well organised companies, and each has a history of close upon forty years. The Nippon Yusen Kaisha has always stood in the position of a semi-national concern, shares being held by the imperial family, and the company through its directors being in some respects government controlled, while of course, as the recipient of large subsidies its services have been regulated to some extent by the imperial authorities. This company has developed fast mail and passenger services with all parts of the world. Its vessels are as large and as well equipped as those of any similar company in any part of the globe, and its fleet of 100 steamers aggregates 480,000 tons, which total represents a fairly high individual ship tonnage. The most modern of the fleet are the *Fushimi Maru* and the *Suwa Maru*, each of which has a cargo capacity of 10,000 tons in addition to elaborately furnished passenger accommodation. Throughout the war the N. Y. K. has maintained a service with England. The capital of the company is Yen 100,000,000, and its annual profits of late years have exceeded Yen 20,000,000.

RELIC OF AN EARLY FOREIGN VISIT TO JAPAN. A DUTCH CHART SHOWING JAPAN, OF THE EARLY SEVENTEENTH CENTURY. IN THE IMPERIAL MUSEUM.—A CHART OF THE WORLD, A RELIC OF THE FIRST DUTCH VISIT TO JAPAN

The Osaka Shosen Kaisha, to which reference is made in another chapter, is largely a cargo-carrying concern, though on certain of its services it provides passenger accommodation of the very best class. It was established in 1884 to operate from Osaka, the commercial metropolis of Japan. This company, popularly known as the "O. S. K.," has a fleet of 154 steamers of a total of 416,000 tons. Its capital is Yen 50,000,000, and the profits during the war have exceeded 40 per cent per annum. The most progressive and strikingly successful of the great trio of Japanese lines is the Toyo Kisen Kaisha, or the Oriental Steamship Company, which has a capital of Yen 32,000,000, and owns the largest and fastest ships of the Japanese merchant service. This company is the creation of Mr. Sojiro Asano, one of the most remarkable of Japan's brilliant captains of industry, whose activities in many great enterprises are described in other sections of this work. The Toyo Kisen Kaisha does not possess a large fleet, but its vessels are, taken as a whole, the largest and best in Japan, ten of them alone aggregating 89,811 tons. This line has concentrated on a fast Trans-Pacific service, and upon the trade with the West Coast of South America, *via* San Francisco, which is destined to grow to large proportions. The net profit of the T. K. K. for the six months to June 30, 1917, was Yen 7,474,241.

Next in rank of ownership of vessels of over 1,000 tons each come the Mitsui Bussan Kaisha with eleven ships of a total of 35,083 tons; the Sino-Japan S. S. Co. with twelve ships of 29,663 tons, and the Yamashita Kisen Kaisha with ten ships aggregating 24,161 tons. Comparatively recent figures gave a total of 446 steamers in the Japanese mercantile marine, each of over 1,000 tons, the grand total being 1,425,689 tons for vessels of this class. This fact alone will indicate that Japan's merchant fleet is not built up merely of coastal and fishing vessels of small size. Perhaps the following table, which discloses an official estimate on July 31, 1917, will best display the real strength of the Japanese merchant service, so far as steamers are concerned:

| | UNDER 1,000 TONS | BETWEEN 1,000 AND 2,000 TONS | BETWEEN 2,000 AND 3,000 TONS | 3,000 TO 4,000 TONS | 4,000 TO 5,000 TONS | OVER 5,000 TONS |
|-----------------------|------------------------|---------------------------------------|---------------------------------------|------------------------------|------------------------------|-----------------------|
| NO. OF STEAMERS . . . | 1,674 | 133 | 128 | 84 | 32 | 71 |

Another interesting little table which will show the growth of the shipping industry of Japan is the following, relative to the number

of people employed in ships, not including those engaged in the shore operations of shipping companies:

| YEAR | JAPANESE | FOREIGNERS | TOTAL |
|------|----------|------------|--------|
| 1881 | 1,901 | 325 | 2,226 |
| 1897 | 7,044 | 938 | 7,982 |
| 1905 | 20,750 | 352 | 21,102 |
| 1912 | 26,140 | 351 | 26,492 |
| 1914 | 30,083 | 351 | 30,434 |
| 1915 | 31,766 | 350 | 32,116 |
| 1917 | 33,976 | 351 | 34,329 |

CAPITAL INVESTED

It is almost impossible to ascertain, in the absence of late official figures, precisely what amount of capital is invested in the shipping industry of Japan. With the three leading companies possessing a combined capital of Yen 182,000,000, it may be imagined what a huge sum has been launched in the business prior to, and since the outbreak of war. A reliable newspaper estimate gave the number of new shipping companies started since the war, as thirteen, with a total capital of Yen 57,200,000. There are also to be reckoned the many concerns which were vigorously and profitably operating before the war, apart from the N. Y. K., O. S. K., and the T. K. K. Taking all things into consideration it would probably not be an exaggeration to say that over Yen 500,000,000 is invested in ships, and this sum is quite apart from the huge amount of capital involved in the shipbuilding industry, which for the moment is being considered apart from the business of operating ships.

GOVERNMENT SUBSIDIES

THE Japanese Government has for nearly forty years pursued a steady policy of encouragement of the shipping industry. Subsidies were granted in the very early days, when all the capital invested had to be provided by other industries, and the business was, for the Japanese, a precarious one. Unquestionably the Nippon Yusen Kaisha, as a specific instance, could not have built up a big business before the war, without state aid, in the face of keen foreign competition. Since

has not shown any inclination to be relieved of a considerable tax on the Treasury, the explanation being that it desires to maintain a rigid control over certain of the older established companies at least. As a matter of fact one or two of the companies have endeavored to get free of this control by declining the subsidies, but the Government has insisted on paying them. The principal subsidies granted as follows:

EUROPEAN SERVICE. A semi-monthly service of eleven ships, each of more than 5,500 tons, and a minimum of 14 knots speed; 26 round trips in the year; subsidy to the Nippon Yusen Kaisha for 1917, Yen 1,689,850; for 1918, Yen 1,569,672.

PUGET SOUND SERVICE. A bi-monthly service with six ships each of more than 5,500 tons, 14 knots speed, 26 round trips yearly; subsidy to the Osaka Shosen Kaisha for 1917, Yen 2,669,925; for 1918, Yen 2,509,187.

SAN FRANCISCO SERVICE. A monthly service of three steamers, each of 12,500 tons and 18 knots, 14 round trips in the year. The amount of the subsidy paid to the Toyo Kisen Kaisha is not officially disclosed owing to the fact that these ships compete with more than one foreign line.

PACIFIC-SOUTH AMERICAN SERVICE. A bi-monthly service with three ships each of more than 6,000 tons; 13 knots speed; six round trips in the year; subsidy to the Toyo Kisen Kaisha, Yen 284,863 for 1917, and Yen 269,350 for 1918.

AUSTRALIAN SERVICE. Three ships of more than 5,000 tons, 15 knots speed, 12 round trips in the year; subsidy to the Nippon Yusen Kaisha for 1917, Yen 169,470; for 1918, Yen 188,497.

It is needless to say that with such liberal subsidies paid in these times when freights are higher than they have ever been, and passenger rates are in keeping, the Japanese ship-owners are making fortunes. Approximately sixty cargo vessels are under charter to foreign firms or governments, and it is estimated that for 1917 charter fees totalling Yen 60,000,000 were received by the fortunate owners. Huge fortunes have been made since the war broke out.

THE SHIPBUILDING INDUSTRY

IN keeping with the growth of the shipping industry, shipbuilding has made equally remarkable strides. It is not so many years ago that there was not a dozen ships in the Japanese merchant fleet which were built in the country, and even those considered as being of Japanese construction, were put together in local yards under foreign supervision from foreign material which was shipped to Japan all ready for assembling. To-day at least 60 per cent of the Japanese



YOKOHAMA DOCK CO., LTD.: THREE VIEWS OF THE LAUNCHING OF THE "SHINTEN MARU"

ships are the product of local yards. As a matter of fact, since the war, the Japanese ship-owners have been selling off the old foreign-built ships at good prices, and reinvesting the money in modern types of cargo and passenger vessels built in the local yards. Thirty years ago the shipyards of Japan could have been counted on the fingers of one hand,

and even then only the Kawasaki and the Mitsubishi yards were constructing small steamers, their attention and that of the other yards being devoted to assembling vessels, designed and built abroad. To-day, however, the situation is completely changed, and the Japanese yards are not only building all the ships locally required, but are constructing

for such old shipbuilding countries as Britain, America, Italy, and France.

The oldest yard in the country is the Fuji-Nagata Shipyard of Osaka, which was established two centuries or more ago, and probably received some influence of the Dutch invasion of the country. The oldest modern yards are those of the Osaka Ironworks, which were established on a small scale in 1880, or thereabouts, by Mr. E. H. Hunter, an Englishman. The Mitsubishi yards at Nagasaki have also been working nearly forty years, and the Kawasaki Dockyard at Kōbē, a little less. If we except the Government Navy Dockyards, there are something like twenty yards in Japan capable of turning out ships from 1,000 up to 20,000 tons. The big liners of the Nippon Yusen Kaisha and the Toyo Kisen Kaisha (the latter's two vessels *Tenyo Maru* and *Shinyo Maru* being each of 22,000 tons) have all been built in Japan.

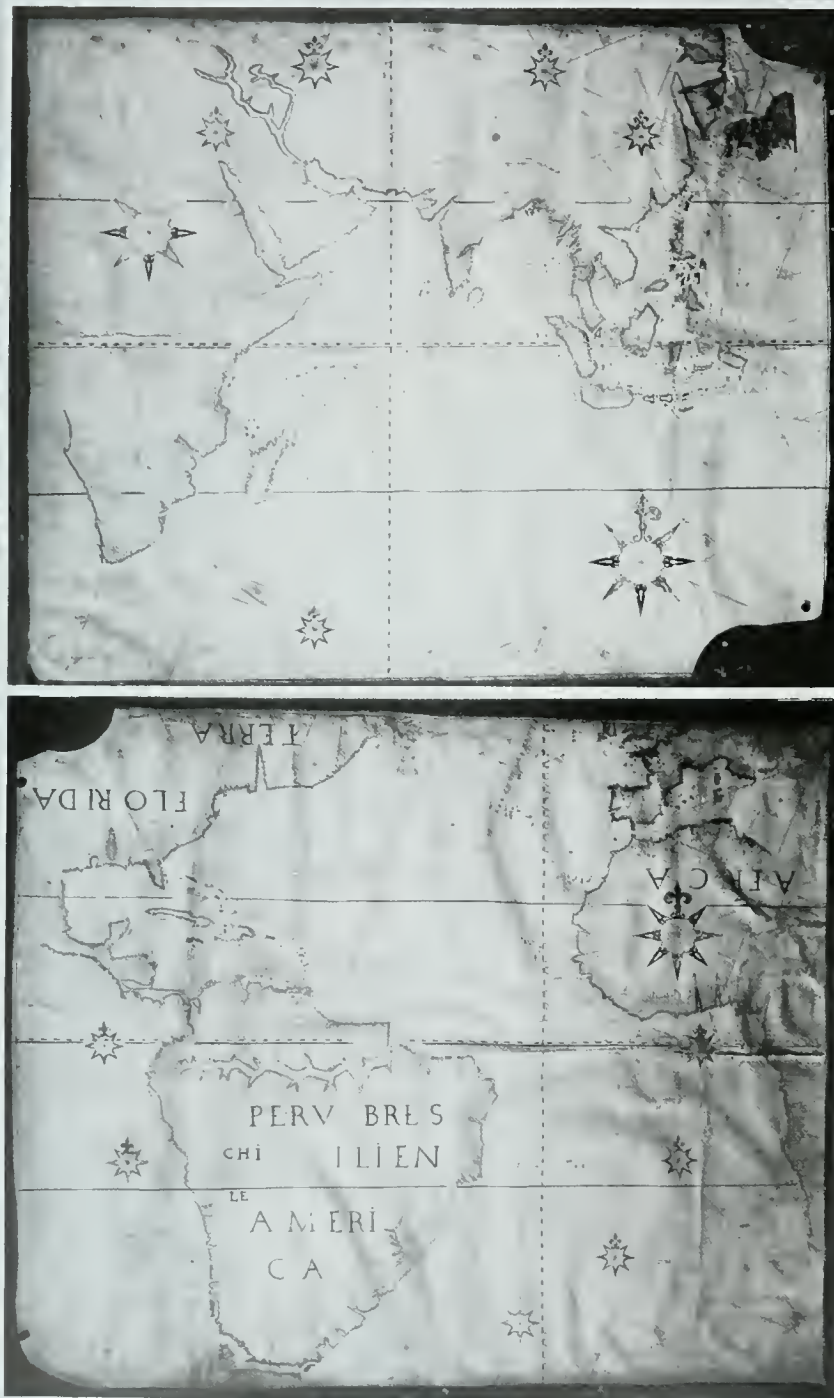
The following statement will give some idea of the shipbuilding capacity of Japanese yards:

SHIPS (OVER 1,000 TONS) LAUNCHED IN 1917

| SHIPYARD | SHIPS | TONNAGE |
|--------------------------------|-------|---------|
| Kawasaki Dockyard | 21 | 112,250 |
| Osaka Iron Works | 17 | 61,000 |
| Uraga Dock | 7 | 32,200 |
| Mitsubishi, Nagasaki | 5 | 33,184 |
| Mitsubishi, Kōbē | 4 | 19,811 |
| Ishikawajima Dock | 4 | 8,400 |
| Asano Dock | 3 | 24,759 |
| Ono Iron Works | 3 | 5,250 |
| Fuji-Nagata | 2 | 4,200 |
| Harima Dock | 1 | 3,750 |
| Matsuo Dock | 1 | 3,030 |

In all there were constructed in 1917, 69 vessels, each of over 1,000 tons, and in the aggregate 299,684 tons, not counting the number of smaller vessels turned out for the coastal services, or for special purposes.

The future of the industry promises much greater results, especially when Japan solves the problem of finding her own supplies of raw material, and does not depend so much as in the past upon the United States and Great Britain for steel plates. Many of the larger yards have berths for five and six vessels, each of 10,000 tons or over, for simultaneous construction. A return furnished by the Department of Communications at the end of December, 1917, showed that there were then in hand orders for 105 merchant vessels of an aggregate tonnage of over 500,000 for launching in 1918. The Osaka Iron Works alone has prepared for 36 ships of a total of 170,000 tons. The Asano Yard, which did not exist in June, 1916, was constructed and turned out its first ship of 7,000 tons within twelve months. This company is also providing its own steel



AN ANCIENT DUTCH MAP ON PARCHMENT, IN THE IMPERIAL MUSEUM, TOKYO—RELIC OF THE EARLIEST VISIT OF FOREIGNERS TO JAPAN, AN ANCIENT NAVIGATOR'S CHART, PROBABLY PORTUGUESE, FOUND IN JAPAN AND PLACED IN THE IMPERIAL MUSEUM

works at Yokohama, and no doubt will turn out a large number of vessels in the near future.

It is estimated that Japan can build 250 ships a year, each over 1,000 tons, there being 113 slips and 24 under construction at the end of October, 1917. If we may assume an average of 3,000 tons per ship, this means that Japan can build at the rate of 750,000 tons per



ON THE OISO ROCK-BOUND COAST

annum, instead of the 500,000 stated above to be planned for 1918. Of the quality of the ships turned out of the Japanese yards, only an expert can speak. It is asserted that the Japanese ships can not be compared with foreign-built vessels, though this statement is open to grave doubt, because it must not be forgotten that the Japanese are not self-taught in the art of ship construction, neither do they employ materials of their own make. The big yards like the Mitsubishi and Kawasaki have had the benefit of the best foreign supervision, and their present technical experts are all highly trained and experienced men. The yards are admittedly equipped with the very best plant, and the designing is done by men who have, as a rule, spent years abroad in the study of marine architecture. Even if the ships at present being launched are not so well constructed, under the pressure of time and demand, there is no reason to believe that the Japanese can not build splendid vessels, and will readily build better still.

The idea that the ships are not quite up to European or American standard of construction most probably arises from the fact that the Japanese build so quickly. The Kawasaki Dockyard holds the world's record for launching a 10,000-ton freight steamer, one month and 29 days after the first keel plate was laid. These records are not made by skimping the work, but are possible under peculiarly favourable conditions which probably do not obtain elsewhere in the world. There is no scarcity of skilled and unskilled

labour, and work goes on day and night without a stop in the big yards. The new Asano works employ 6,000 men, and such a force, under skilled direction, using the very latest plant and appliances, with a plenitude of material all ready at hand, should be able to make good time on ship construction when the demand for tonnage is so imperative.

A lengthy article could be written on ship-building, but enough has been said, in conjunction with the shipping industry, to show what wonderful progress has been made in this department of Japan's industrial life.

HARBOURS

ALTHOUGH there are over one thousand harbours now visited by merchantmen, before the opening of the country to foreign trade the number of harbours able to accommodate ships was negligible, as they remained in their natural state. It was not until 1878 that any serious attempt was made at reclamation and improvement of harbours, since when many roadsteads capable of accommodating ships of considerable size have been completed. The following table gives the leading harbours of Japan with improvements carried out:

| PLACE | WORKS | BEGUN | COMPLETED | COST, YEN |
|---------------|-----------------------|-----------------|-----------------|-----------|
| Nagasaki..... | Dredging, walls, etc. | July, 1897 | September, 1904 | 3,100,000 |
| Miike..... | Breakwater, etc. | November, 1902 | November, 1907 | 3,000,000 |
| Nagoya..... | Piers, dredging, etc. | August, 1896 | August, 1907 | 2,383,000 |
| Yokohama..... | Piers, walls, etc. | September, 1889 | May, 1896 | 2,353,000 |
| Otaru..... | Breakwater, etc. | May, 1897 | May, 1908 | 2,189,000 |
| Kagoshima... | Dredging, breakwater | April, 1900 | March, 1909 | 843,000 |
| Hakodate..... | Breakwater, dredging | June, 1896 | April, 1899 | 820,000 |
| Takamatsu... | Breakwater, dredging | July, 1897 | September, 1904 | 328,000 |
| Ujina..... | Dredging, walls, etc. | September, 1884 | April, 1890 | 300,000 |
| Sakai..... | Piers, etc. | May, 1878 | June, 1882 | 228,000 |
| Misumi..... | Piers, etc. | May, 1883 | June, 1892 | 107,000 |

The harbour works completed, however, are as nothing compared to those still under way, and now to be mentioned in due course. In Japan there are altogether some 530 ports regularly visited by steamers, most of which are coasting vessels. These include 36 open ports, 4 naval ports, and 3 fortified ports. The greater portion of the funds for harbour improvements have been drawn from local taxation or public works funds; but in exceptional cases of national importance, like Kobe and Yokohama, the expenses have been met by the National Treasury. The harbour works at Miike were constructed at the expense of the Mitsui Company whose great coal mines are in the vicinity. But the harbour at Tsuruga was completed at a cost of 800,000

yen to open connection with the Trans-Siberian railway. Osaka harbour, which was started by the city in 1897, has already cost 24,200,000 yen in improvements, but owing to defective plans the results are not yet satisfactory. Kobe harbour is also under construction and when completed will be one of the best in the Empire. Some fourteen other harbours have been nominated for improvement by the Government Harbour Commission at a cost of 100,000,000 yen, one of the most important of which is Yokkaichi at an outlay of 7,500,000 yen; but the success of this venture is doubtful owing to sandy bottom. The harbour at Funakawa is to be completed at a cost of 3,000,000 yen, Shio-gama at 4,000,000 yen, Kagoshima a further 2,500,000 yen, and Aomori 3,000,000 yen. The relative importance of the more prosperous ports of Japan may be seen from the table (1915) on the following page.

It will thus be seen that of the 36 open ports in Japan, Yokohama and Kobe are by far the most important commercially, as through these the bulk of the nation's foreign trade passes, and consequently in both ports harbour improvements and extensions are constantly under way. Yokohama harbour, with its more than two miles of breakwater, enclosing a space of nearly 1,300 acres, and

its magnificent new quay walls and warehouses, provides accommodation second to none in the East for ships of all sizes; and a canal between that port and Tokyo is under contemplation. The question of a new harbour for Tokyo, capable of receiving large ships, has long been advocated, but the scheme has not yet been commenced, although the surveys have been made and plans are being perfected. The harbour improvements at Kobe, when completed, will leave that port with three miles of breakwater, enclosing an area of nearly 1,800 acres, to protect shipping from south and east winds; while sheds and landing facilities are of the best. The subject will be found more fully treated in the chapters devoted to these cities.



YOKOHAMA HARBOUR AND DOCKS, AS SEEN FROM THE MEMORIAL TOWER

| PORT | EXPORTS YEN | IMPORTS YEN | TOTAL YEN |
|-------------------|--------------------|--------------------|----------------------|
| Yokohama..... | 395,953,588 | 140,350,624 | 446,304,212 |
| Kobé..... | 197,597,830 | 269,216,398 | 466,814,228 |
| Osaka..... | 93,822,636 | 50,610,954 | 144,433,590 |
| Nagasaki..... | 4,639,673 | 7,829,518 | 12,469,191 |
| Moji..... | 18,604,378 | 23,200,974 | 41,805,352 |
| Hakodate..... | 4,791,279 | 399,318 | 5,190,597 |
| Other ports..... | 82,897,613 | 40,842,152 | 123,739,765 |
| <i>Total.....</i> | <i>708,306,997</i> | <i>532,449,938</i> | <i>1,240,756,935</i> |

SHIPBUILDING

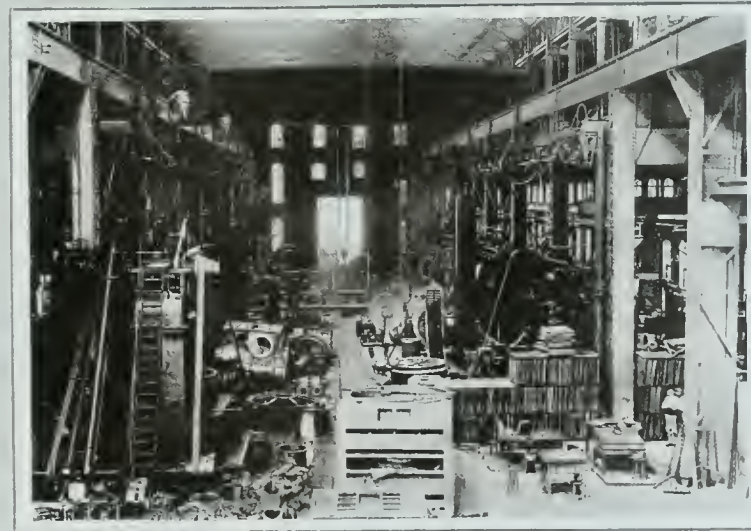
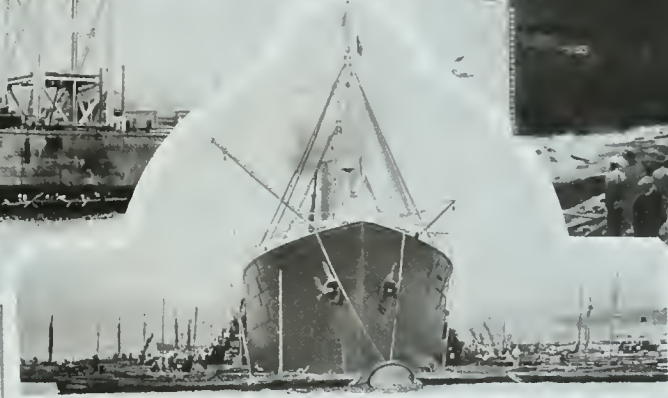
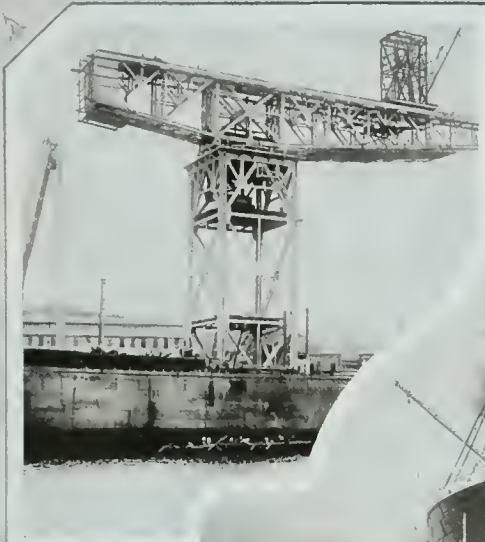
THE MITSU BISHI COMPANY

AMONG the greatest and most powerful financial and industrial corporations of Japan is the Mitsu Bishi Company, known in legal terminology as The Mitsu Bishi Goshi Kaisha, whose enormous wealth and influence are vitally felt in every department of national activity and progress. Though not so old as the Mitsui firm, the Mitsu Bishi is none the less a family concern, having been founded by

the Iwasaki family in the early years of the Meiji era, and in the short space of fifty years it has come to be a worthy rival of its great competitor in every direction. Through the founder of the company, the late Mr. Yataro Iwasaki, and his successor, the late Baron Yanosuké Iwasaki, Japan established her first steamship company, which in time recovered the nation's shipping from foreign control and made the Japanese flag supreme in Oriental waters. After the Mitsu Bishi Steamship Company amalgamated with the Union

Transport Company in 1885 to form the Nippon Yusen Kaisha, or Japan Mail Steamship Company, the Iwasaki family formed themselves into the Mitsu Bishi Company, which, however, still remains one of the largest shareholders in Japan's greatest shipping company, whence its influence extends widely into commerce and communications, augmenting its fortunes and promoting at the same time the interests of the Empire.

The remarkable prosperity of the Mitsu Bishi Company is due largely to the character, energy, and foresight of the late Baron Yanosuké Iwasaki, and his nephew, Baron Hisaya Iwasaki, who in 1916 resigned the presidency of the company in favour of Baron Koyata Iwasaki. The present head of the house was educated in England and is a man of exceptional brilliancy in financial circles. In 1916 the Mitsu Bishi Company was reorganised with the following departments, for greater facilitation of its increasing enterprises: (1) General Affairs Department, with Mr. K. Aoki as General Manager; (2) Metal



MITSU BISHI COMPANY: THE 12,000-TON MITSU BISHI FLOATING DOCK AT KOBÉ WITH THE S. S. "EMPRESS OF CHINA" IN DOCK — GIANT CRANE AT NAGASAKI SHIPYARD — S. S. "MANILA MARU," BUILT BY THE COMPANY, LEAVING THE STOCKS — THE PROCESS OF COALING THE S. S. "MANCHURIA" BY THE COMPANY IN RECORD TIME — THE MACHINE SHOP, NAGASAKI DOCKYARD

Mining Department, Mr. Shinji Harada being General Manager; (3) Coal Mining Department, with Mr. Kusuyata Kimura as General Manager; (4) Trading Department, General Manager, Mr. Sadaye Eguchi; (5) Real Estate Department, Mr. Shoichi Kirishima, General Manager; (6) Banking Department, of which Mr. Manzo Kushida is General Manager; (7) Shipbuilding and Engineering Department, Mr. Taisuke Shiota being General Manager; (8) Iron Works Department, with two General Managers, Mr. Teizaburo Hori and Mr. Shinji Harada; (9) the Oriental Department, managed by Mr. Hyakutaro Miyagawa. The private secretary of the President is Mr. Goro Oyama.

In its Banking Department, which was opened as far back as 1885, the Mitsu Bishi has been remarkably successful, and it is now

one of the largest private banking houses in the Empire, enjoying the confidence of the public and wielding an increasing influence on national finance, as may be seen from its large number of foreign clients and depositors, the latter being often from Europe and America. Following a policy sufficiently conservative to be consistent with sound finance, the Mitsu Bishi Bank has passed safely through the various economic crises the nation has experienced. The Banking Department carries on all the transactions of a first-class banking house, including loans on approved securities, discounting bills, receiving deposits and opening current accounts, making collections and remittances, dealing in negotiable paper; and all on the best terms possible. The Mitsu Bishi Bank is working on a capital of 1,000,000 yen, has a reserve

fund of some 10,142,000 yen, deposits of over 118,930,000 and loans of about 91,611,000 yen.

In coal, gold, and copper mining the Mitsu Bishi Company is one of the largest owners and operators in the world, having ten metal mines and eight coal mines whose total annual output for some years has averaged as follows:

| | |
|-------------|----------------|
| Gold..... | 15,432 lbs. |
| Silver..... | 65,273 lbs. |
| Copper..... | 13,000 tons |
| Coal..... | 3,100,000 tons |

Each of the metal mines has its own refining plant, but as the capacity is limited, most of the refining takes place at the company's great metallurgical works in Osaka, where the process of electrolysis has been brought to



DIRECTORS OF THE MITSU BISHI COMPANY

(1) Mr. SADAYE EGUCHI, General Manager, Trading Department—(2) Mr. SHINJI HARADA, General Manager, Metal Mining Department—(3) Mr. T. SHIOTA, General Manager, Shipbuilding and Engineering Department—(4) Baron HISAYA IWASAKI, Partner—(5) Baron KOYATA IWASAKI, President—(6) Mr. SEIJIRO SHO, Late General Manager, General Affairs Department—(7) Mr. K. AOKI, General Manager, General Affairs Department—(8) Mr. T. UYEMATSU, Newly Appointed Managing Director of Mitsubishi Shipbuilding Co., Ltd.—(9) Mr. KUSUYATA KIMURA, General Manager, Coal Mining Department—(10) Mr. MANZO KUSHIDA, General Manager, Banking Department—(11) Mr. SHOICHI KIRISHIMA, General Manager, Estate Department



ASANO SHIPBUILDING COMPANY: GENERAL VIEW OF YARD AND MACHINE SHOP — VIEW OF THE DOCKYARD — BIG FREIGHT SHIPS
NEARING THE LAUNCHING STAGE

such perfection that the electrolytic ingots and plates of copper turned out are renowned for a purity that brings them into constant demand throughout the world. No less conspicuous is the company's enterprise in coal mining, the quality of the output being such that it is in constant demand by all the great steamship lines as well as the Imperial Navy, to whom the company are contractors, while large and increasing exports are sent out in the company's own colliers.

The phenomenal progress made in shipbuilding in Japan is in a great measure due to the enterprise and ability of the Mitsu Bishi Company, with its great dockyards at Nagasaki and Kobé, which have supplied the nation's shipping companies with most of their vessels and the Imperial Navy with some of its finest battleships and destroyers. For descriptions of these docks the reader is referred to the Osaka and Kobé section on Shipping in this volume. Further extensive undertakings of the Mitsu Bishi Company are: paper-making, its mills having a capacity of some 70,000 pounds a day; warehousing, with great sheds at Kobé and Osaka and the best equipment in landing facilities; real estate, and iron and steel works. The total capital of the Mitsu Bishi Company is 15,000,000 yen, and it gives employment to nearly 100,000 men. The company's head office is at Marunouchi, Tokyo, where its fine array of buildings, with latest appointments, occupy several city blocks and form an enormous asset. The company has branches in the various important cities and ports of Japan, and is well represented in the Far

East as well as in London and New York, where its foreign trade is showing remarkable development.

ASANO SHIPBUILDING COMPANY, LIMITED

ONE of the most remarkable men in Japanese industrial circles is Mr. Soichiro Asano. He has developed enormous interests of all kinds, in which millions of capital are invested, and it is hard to say where his interests begin and end. He is the president and moving spirit of the Toyo Kisen Kaisha, one of the three greatest shipping companies in Japan, besides being the leading man in the cement industry, which he controls as president of the Asano Cement Co., Ltd. In addition he is one of the founders of the Tokyo Ropeworks, is on the boards of half a dozen other commercial concerns, and is now leading the movement for the proper development of the steel industry.

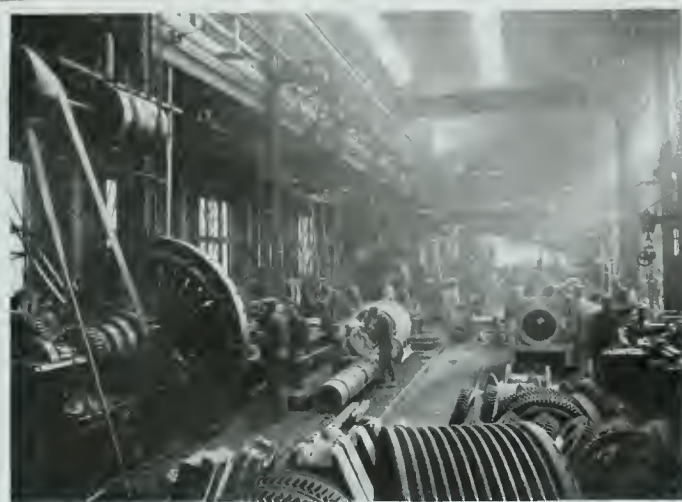
It was only to be expected that a man of Mr. Asano's energy should realise the great opportunity the war has presented for shipbuilders, and that he should strive to outdo the biggest concerns in the country, when once he decided to embark in the enterprise. Mr. Asano formed the Asano Shipbuilding Co., Ltd., in the middle of 1916, and before his new venture had been in existence twelve months it had established several records. Application was first made for a dock and shipbuilding site at Yokohama. When this was refused Mr. Asano set out to reclaim land at Tsurumi, a place in Tokyo Bay, about six or seven miles from Yokohama. Up to

this stage Tsurumi was nothing but a small hamlet, having no houses to speak of, and certainly no industries. To-day it is the centre of an enterprise that bids fair to rival any in the world. A record was established in the construction of the dockyard and building berths, which were completed in about five months from the day reclamation was started. The first ship was launched on the anniversary of the commencement on the site. She was the *Hakushika Maru*, a vessel of 11,000 tons, built for the Tatsuma Steamship Company, and to date is the largest ship turned out on Tokyo Bay. A month later the second ship was launched.

This was a fair beginning for a company that had been in existence only a year, but it is an indication of the speed and energy which Mr. Asano has injected into his enterprise, in which he originally invested Yen 3,750,000. Before the end of the year 1917 he had increased the capital of the Asano Shipbuilding Co., Ltd., to Yen 15,000,000, and had laid down plans which stagger belief. The Toyo Kisen Kaisha, or Asano interest, already have eight building berths which can turn out vessels of the *Tenyo Maru* class (22,000 tons). With some alteration two of these berths can be made to accommodate ships of 30,000 tons. In addition, it is planned to lay down eight more berths, including six for ships of 8,000 tons and two for freighters of 3,000 tons deadweight. Any of these ships can be built inside of six months, and when all the berths are completed the Asano Shipbuilding Company will have a capacity for turning out 500,000 tons of ships annually, which is



OYEBASHI (BRIDGE) NEAR THE SAKURAGICHO ELECTRIC RAILWAY STATION, YOKOHAMA



YOKOHAMA ENGINE AND IRON WORKS, LTD.: VIEW OF THE MAIN WORKS AT CHIWAKA-CHO, YOKOHAMA — INTERIOR OF THE MACHINE SHOP — THE NEW SHIPBUILDING BERTH AT CHIWAKA-CHO, YOKOHAMA

almost twice as great as the capacity of all the yards of Japan before the war. The company is said to be better stocked with steel and other materials than any concern in Japan, but Mr. Asano's plans include the erection of two steel plants, one in Yokohama and the other in Chinnampo, Korea, the scheme calling for an investment of Yen 15,000,000. The Yokohama plant is expected to be producing steel in January, 1918, and the mill in Korea will be a producer in April or May. The Asano yards require about 250,000 tons of steel annually. Over 6,000 workmen are engaged, the yards working to full capacity day and night to fulfil orders which have poured in from all parts of the world.

Mr. M. Hara is the Managing Director of the Asano Shipbuilding Co., Ltd., and Mr. Rio Kato is the Technical Managing Director.

YOKOHAMA ENGINE AND IRON WORKS LIMITED

THIS company has the distinction of owning one of the oldest iron and engine works in Japan, and of being the successor of the first business of its kind, conducted under the European system, ever established in the country. The history of the business goes back to the earliest days of the arrival of the foreigner, for the first small plant and repair shop was erected in 1861, when Mr. Whitfield, an Englishman, started in the trade, and located his shop at No. 69 in the foreign settlement. Later on Mr. Edward Kildoyle, an American, opened a similar business, close to the works of Mr. Whitfield and for some years the two engineers and iron-founders were in competition. Between them the two firms engaged in shipbuilding and repairing, and the manufacture and repair of machinery of all kinds, for marine and land use. Finally Mr. Kildoyle bought the business of his rival, and later on formed a joint-stock company under the name of the Yokohama Engine and Iron Works, Ltd.

The development of Yokohama led to a considerable expansion of the company's business, and the works extended over newly acquired ground. A high reputation for accuracy and finished workmanship and general reliability was gained, and the business became very prosperous. The company purchased the interests of the Peterson Engineering Works, which were established at No. 113 Yamashita-cho. This step led to an increase in the capital, the rebuilding of the works, and the introduction of many improvements. At this time the Yokohama Engine and Iron Works, Ltd., owned 2,000 *tsubo* of ground and on this area was erected the machine construction shops, moulding shop, iron foundry, wrought-iron works, boiler-making plant, finishing and erecting shops, etc., the whole

plant being modern and complete in every sense.

In December, 1916, Dr. Tsuneta Shin (Doctor of Technology) purchased the company's interest in the entire plant and works, and changed the name to the Yokohama Iron Works. The rapid development of industry in all directions, and particularly the expansion of the shipping industry, dictated an early expansion of the operations of the concern, and in April, 1917, Dr. Shin formed a partnership with Mr. Nobuya Uchida, President of the Uchida Steamship Company, of Kobé. The capital was raised to Yen 1,000,000, the partnership being transformed straightway into a joint-stock concern, and many improvements being effected in the general conduct of the business. One immediate effect of this important change was that the new company was able to enter upon shipbuilding on a much larger scale than before. A shipbuilding site was purchased at Chiwakamachi, Kanagawa, comprising 12,000 *tsubo* of land. Three building berths were laid down, and the necessary machine shops, etc., were erected. At the time of writing the first steamer is under construction, and when the plant is complete the company will be able to build three ships, each of 10,000 tons, simultaneously. In the near future docks will be constructed, so that the company will be in a position to carry on work through all stages of shipbuilding and repairing, on an extensive scale. As it is, the Yokohama Engine and Iron Works, Ltd., is undertaking engineering work of practically every description. Apart from the building and repair of ships, the works are turning out engines and boilers for land and marine purposes, mining machinery, spinning machines, turbines and other plant for water power, electrical machinery, locomotive and other railway machinery and material, metal work generally, and tools, as well as doing a large business in the repair and overhaul of machinery of all kinds. There is a large staff of the most skilled technical specialists, and the company also has the advantage of a numerous and well trained body of mechanics and workmen. The principal officials of the Yokohama Engine and Iron Works, Ltd., are: Mr. Nobuya Uchida, President; Dr. Tsuneta Shin, Mr. Seitaro Uchida and Mr. Teiji Yagi, Managing Directors; Messrs. Sanjiro Yamamoto and Yoji Kasuya, Auditors. The head office of the company is at No. 161 Yamashita-cho, Yokohama.

YOKOHAMA DOCK COMPANY, LIMITED

EVIDENCE of the importance of this company is found in the fact that it has the support of the Nippon Yusen Kaisha, and

has lately been awarded a contract for the construction of twenty vessels, amounting in value to 84,000,000 yen. The Yokohama Dock Company, Ltd., has been in existence for some years, and has developed a large industry which is of great value to Yokohama. Its yards and plant are situated close to the town, and comprise modern slips and all necessary equipment. The greatest progress has been made in the last two or three years, and though at the time of writing there are only two berths, one for 1,500-ton and the other for 2,500-ton vessels, the capital has lately been increased to Yen 10,000,000 to enable the company to carry out an extensive programme which will put it right in the forefront of the shipbuilding concerns of Japan. The plans now in course of completion include an entirely new dockyard within the breakwater at Yokohama. Permission has been granted for this new yard, and the site has been secured. It covers an area of 6,676 *tsubo*. Part of the work will include reclamation of the foreshore at Kanagawa, and when this is carried out five shipbuilding berths will be laid down. One of these will be large enough to accommodate a vessel up to 30,000 tons, and the others will be for steamers, such as those ordered by the Nippon Yusen Kaisha, each about 6,000 tons. The capital for this purpose has been raised partly by the Nippon Yusen Kaisha which took up 30,000 of the new issue of 50,000 shares, and partly by the general public.

The Yokohama Dock Company, Limited, not only builds ships, but does an extensive business in the repairing and overhaul of vessels. The illustrations of the company, shown in this volume, were taken on the occasion of the launching of the *Shinten Maru*, which was constructed for Tatsuma S. S. Co. Though the day was spoiled by the heavy rain that fell, the ceremony nevertheless was attended by thousands of persons, all interested in the success of the local company. The launching was a perfect success, and the officials of the company were heartily congratulated. Mr. S. Yamada, the Managing Director of the Yokohama Dock Company, Limited, is a man of considerable experience in modern shipbuilding, and there is little doubt his company will develop into a mammoth undertaking. The head office and yards of the company are at Irifune-cho, Yokohama.

ISHIKAWAJIMA SHIPBUILDING AND ENGINEERING COMPANY, LIMITED

THIS company, known under its Japanese title as the Tokyo Ishikawajima Zosenjo, was founded in 1876 by the late Mr. Tomiji Hirano, at a time when it was not expected



NIPPON YUSEN KAISHA: INTERIOR VIEWS OF S. S. "SUWA MARU"; THE DINING SALOON — THE SOCIAL HALL — THE LOUNGE — THE SMOKING ROOM — THE CHILDREN'S PLAY ROOM



that the engineering and ironworking trades would ever reach the huge dimensions to which they have now attained. After carrying on for thirteen years as a private concern, these old established works were turned over to the present company, which was incorporated in 1889 with a capital of Yen 175,000. To-day the capital of the company is Yen 5,000,000. From their inception the dockyards and machine shops at Ishikawajima were mainly devoted to repair work, but with the development of the iron and steel industries, and the growth of shipping in Japan, the plant was gradually enlarged and the company took on heavier and more important work, including the building of ships and the manufacture of boilers, cranes, girders, bridges, pumps, etc., besides undertaking contracts for structural steel work, the installation of hydraulic machines, and general engineering. As an example of the develop-

ment and present-day capacity of the Ishikawajima Company it may be mentioned that in the last half of 1917 six vessels, of a total of 13,600 tons, constructed for such important Japanese shipping companies as the Osaka Shosen Kaisha, the Kishimoto S. S. Co. and others, were launched from the yards. The company is the licensee of Woodeson's patent watertube boilers and of Clarke, Chapman & Co.'s patent pumps. In addition to the main dockyard and big machine shops at Ishikawajima, the company owns a branch works at Wakamatsu, Kyushu. The area of land covered by the main yard and shops is 22,500 *tsubo*, or about 18.38 acres. The shops and other buildings cover 6,800 *tsubo*. They comprise machine shops, smithy, foundry, plate and girder works, boiler shops, pattern shop, copper smithy, saw mill, etc. There are four shipbuilding berths and one dry dock. The yards are

fitted with the latest plant and machinery, giving the company every advantage in turning out work expeditiously and at a minimum cost. Electrical power is used. Altogether 3,600 hands are engaged at the works and the annual wages bill runs to over Yen 720,000. The value of the output of the company is about Yen 5,000,000 per annum. As with most other shipbuilding and engineering concerns in the Far East, the steel and iron required are obtained from the United States and Great Britain. The Ishikawajima Company has no dearth of orders from the local market and from China.

The principal officers of this important company are: President, Dr. Kaichi Watanabe, M. E. (Eng.); Managing Director, Mr. Tokuro Uchida, M. E.; and Directors, Messrs. Teikichi Shimizu, M. E., Kadzuo Sato, Shigeru Tanaka, and Tokujiro Yokoyama.



CARGO JUNKS ON THE SUMIDA RIVER, TOKYO



GENERAL VIEW OF THE URAGA

THE URAGA DOCK COMPANY

To no industry has the European War given greater impetus than to shipbuilding; and among the Japanese yards that have come in for a large share of this prosperity is the Uraga Dock Company. Established in 1894 under the auspices of the famous Japanese naval officer and statesman, Viscount Enomoto, backed up by such capitalists as Messrs. I. Arai and G. Watanabe, the concern did not experience much activity until the completion of its plant in 1897. Five years later the company purchased the property of the Ishikawa Shipbuilding Company in the neighbourhood, which greatly extended its capacity. The progress of the Uraga Dock Company, however, was slow until taken in hand by its present president, Mr. T. Machida, with the skilled assistance of Mr. Tomizo Ito, the present manager. Accepting office in 1911, Mr. Machida at once set about overcoming the various difficulties in the way of further activity, when the situation soon improved. The scarcity of bottoms caused by the war in Europe reacted enormously in favour of the Uraga Dock Company, as many orders were received for the construction of new steamers, and the business of the company began to forge ahead with remarkable rapidity. An extension of works and enlargement of capacity for construction at once became necessary, and at present the company is one of the most successful and prosperous shipbuilding concerns in the Empire.

In 1916 the Uraga Dock Company built five vessels of 3,500 tons each, and two of 6,500 tons each; and the yards now have under way the construction of ten vessels, of which five are to be of over 10,000 tons each, and one of over 8,000 tons; and there

appears every prospect of further orders. The two magnificent dry docks and five building slips of the company provide every facility for the launching and repairing of vessels of considerable size, the largest graving dock being able to accommodate ships of 8,000 tons and 500 feet in length, while the smaller dock receives vessels up to 450 feet in length. There is every provision for the repairing of over 200 ships a year, and the average for some time has been over 100 ships a year. Two of the construction slips have a capacity for vessels of over 10,000 tons, and three slips can launch hulls of over 6,500 tons. The company at present has a building capacity of about ten steamers annually.

To go fully into the details of the Uraga Dock Company's fine equipment for turning out ships of the best class would fill more space than is at the disposal of this notice, but it may be mentioned that the main plant covers some eight acres of ground and the branch plant considerably more. Number 1 graving dock is 70 feet wide at the top and 60 at the bottom, with a length over all of 500 feet and on blocks of 485 feet. Number 2 dock has a width at the top of 66 feet and 54 below, the total length above being 459 feet; and on the blocks, 413 feet. Both docks are built of brick and stone, and have a depth of 27 feet of water at high tide in Number 1 dock, and over 15 feet in Number 2 dock. The time required for displacement of water in Number 1 dock is 3 hours; for Number 2 dock, 2 hours. As to slips, Number 1 has a total length of 700 feet, and a width of over 50; while Number 2 slip has a length of 500 feet and a width of over 40. The slips in the branch works have a length of 500 feet in both cases, and a width of 40

feet. The various shops for fitting and repairing, as well as the iron works and machine shops, are provided with the most up-to-date equipment; and the company is always prepared to accept and efficiently and expeditiously execute orders for either construction or repairs.

The outlook of the Uraga Dock Company being so bright and the demands upon its capacity so constantly increasing, the management has decided on an expansion of capital, issuing 84,000 new shares representing a value of 4,200,000 yen, which brings the total capital of the company up to 5,000,000 yen. Thus provided with more ample financial resources, the company will easily redeem its old obligations and be able to enlarge its plant sufficiently to build larger ships and with greater expedition.

SHIPPING

THE NIPPON YUSEN KAISHA

THE Nippon Yusen Kaisha, or Japan Mail Steamship Company, is one of the great enterprises of which the Japanese are justly proud, because it represents all that is best and grandest in their fine mercantile marine. Indeed, the Nippon Yusen Kaisha must rank among the greatest of the world's merchant shipping concerns, possessing as it does a fleet of over a hundred ships with a total gross tonnage of 470,000, which has carried its flag into every port of importance now open to foreign traffic.

This great organisation, like most others in Japan, had a humble beginning. It was established in 1885 as a result of the amalgamation of two concerns, namely, the Kyodo Unyu Kaisha (the Union Transport Co.) and the Mitsu-bishi Kaisha (the Three Diamonds Co.). The capital of the company was then



DOCK COMPANY'S SHIPBUILDING YARD

Yen 11,000,000 and the combined fleet comprised fifty-eight steamers representing a total of 68,700 tons, most of them being small craft, in no way comparable to the magnificent ocean steamers now included in the fleet of a hundred ships. The Nippon Yusen Kaisha at first confined itself to the Japanese coastal trade, but gradually extended its operations to Korea, North China, and Vladivostok. Its regular first ocean service was inaugurated in 1893 when ships were despatched to and from Bombay, a movement which has since materially helped the growth of the cotton manufacturing industry in Japan. The China-Japan War in 1894-1896, and the Government's promulgation of the Navigation Encouragement Law in 1896, gave a marked impetus to maritime enterprise in Japan. The N. Y. K. was among the first of the companies to claim the support of the Government under the new law, and at once extended its activities in foreign waters. Ten new steamers were ordered to be built abroad and in Japan, and for this purpose the capital of the company was increased to Yen 22,000,000. Three main lines of passenger and freight service were opened, namely, a European, an American, and an Australian line, all the steamers on these services running under mail contract with the Japanese Government.

During the decade following the China-Japan War, the business of the Nippon Yusen Kaisha steadily increased, keeping pace with the general expansion of the country's foreign trade. After the close of the Russo-Japanese War in 1906, the N. Y. K. went in for a further wide expansion of its ocean services, and the management concentrated its energies on giving its passengers

and freight customers the best that could possibly be given in the way of accommodation, comfort, and fast passages. The line to Calcutta was opened in 1911, and the service thus provided has done much to promote Indo-Japanese trade. The outbreak of the great war placed enormous difficulties in the way of all shipping companies, but notwithstanding these difficulties and the dangers with which traffic in certain waters was beset, the Nippon Yusen Kaisha has not only maintained its regular services but has reinforced its fleet with many new steamers, and has opened up additional freight lines. Thus the company's extra freight steamers on the European line, now cross the Atlantic to New York, and return to Japan *via* the Panama Canal, completing the round-the-world voyage. In 1915 the N. Y. K. doubled its capital to Yen 44,000,000, and in June, 1916, opened a regular four-weekly freight service between the Far East and New York *via* the Panama Canal, establishing a direct waterway communication between Oriental ports and the eastern shores of the United States. A few months later a further development took place when the freight service with New Zealand was initiated, opening up new trade relations between that country and Japan. To-day the company's operations cover almost all parts of the world, including South America, to which ships with cargo and immigrants are often despatched.

During the past thirty years or so the N. Y. K. has on several occasions been able to render signal services to the Japanese Empire through the agency of its organization and its magnificent fleet. During the two wars of 1894 and 1904, and again in 1914 at Tsingtao, it sacrificed its commercial

interests to the needs of the nation, and well deserved the thanks tendered to it by the Government. In the campaign against Tsingtao the N. Y. K. successfully performed the task of transporting the major portion of the armies, with all their stores and equipment, to and from the front. Since the year 1905 the Nippon Yusen Kaisha, in addition to numerous steamers for its coastal services, has had the following vessels designed and built for its various foreign services:

- 6 ships *Kamo Maru* type, of 8,000 tons each.
- 2 ships *Katori Maru* type, of 10,000 tons each.
- 3 ships *Fushimi Maru* type, of 12,000 tons each.
- 14 ships *Toyama Maru* type, of 7,000 tons each.

These ships, and others now in course of construction, give the company an entirely modern fleet of one hundred vessels of over 470,000 gross tonnage—a remarkable stride since the establishment of the company. Such an achievement has only been possible under the most capable management and direction. In this respect the N. Y. K. is to be congratulated on its officers and staff. It has had three able presidents. First, the late Baron M. Morioka, who was elected as President on the company's formation, and who held office until 1894 when he retired; second, the late Mr. T. Yoshikawa, who succeeded Baron Morioka, and died in 1895 while holding office, and thirdly, the present President, Baron R. Kondo, who was at once elected to the chair on the death of Mr. Yoshikawa, and was reelected in 1907 when his first term had expired.



ISHIKAWAJIMA SHIPBUILDING AND ENGINEERING CO., LTD.: THE MACHINE SHOPS AND DOCKYARD



NISSHIN KISEN KAISHA (JAPAN-CHINA STEAMSHIP CO.): S. S. "SIANGYUANG MARU"—SCENE ON THE FOOTUNG WHARF, SHANGHAI—GODOWN AT HANKOW

THE JAPAN-CHINA STEAMSHIP COMPANY

THE Nisshin Kisen Kaisha, or Japan-China Steamship Company, as the name signifies, confines its operations to the waters of Japan and China, in contrast to the other national companies which run lines to Europe, America, and Australia. The Nisshin Kisen Kaisha was formed ten years ago by amalgamating the Yangtsze-Kian lines of the Nippon Yusen Kaisha and Osaka Shosen Kaisha, the Human and the Daito S. S. Companies, in order to meet the increasing demand for improved facilities in freight and passenger traffic between Japan, China, and the upper reaches of the great Yangtsze River. The Nisshin Kisen Kaisha has a paid-up capital of 8,100,000 yen, a reserve fund of 2,993,000 yen and a fleet of fifteen fine steamers aggregating a tonnage of 45,000, the business at present yielding an annual dividend of twelve per cent. The head office of the company is at Yuraka-cho, Kojimachi-ku, Tokyo, with branch offices at Shanghai, Hankow, Chinkiang, Wuhu, Kiukiang, Changsha, Ichang, and Chungking. Regular agencies have been established at Nanking, Yochow, Siangtan, Changteh, and Shasi.

The Nisshin Kisen Kaisha maintains five lines of steamers plying in the waters of China. Some of the finest and most commodious boats are on the Shanghai-Hankow line, navigating the vast reaches of the lower Yangtsze. The nine vessels on this line maintain a regular service five times a week with terminus at Hankow, where close connections are made with the lines branching off to other great centres of Chinese trade and industry. Descending the Whanpoo River from the port of embarkation, the vessels of this line soon join the main stream of the Yangtsze on the way to Hankow by way of Chinkiang and intermediate ports. A further service is maintained on the Shanghai-Ichang line, the Hankow-Ichang line, the Hankow-Siantang line, the Hankow-Chanteh line, and the Poyang Lake line. Under special arrangements with the Nippon Yusen Kaisha and the Osaka Shosen Kaisha passengers may transfer from the steamers of the Nisshin Kisen Kaisha and proceed to ports served by these lines.

In Shanghai three vessels of the Nisshin Kisen Kaisha moor at the same pier as those of the Nippon Yusen Kaisha, while the rest of the fleet for Hankow may be found at the company's own wharf across the river at Pootung. As the boats of the Nisshin Kisen Kaisha always sail at midnight passengers have to go on board the previous evening. A launch runs every hour from the Shanghai pier for the convenience of those embarking at

Pootung. Those desiring to see the most interesting portions of old China with convenience and up-to-date comforts can not do better than take the boats of the Nisshin Kisen Kaisha from Shanghai and proceed up the Yangtsze, connecting with the various other lines at Hankow and reaching by the way such ancient cities as Chinkiang, with its densely crowded streets and picturesque civilisation, situated on the southern bank of the river about 165 miles above the port of departure. Here the grand canal constructed during the Sui dynasty joins the river, at one time the main waterway between Chinkiang, Tientsin, Soochow, and Hangchow. Chinkiang is not only one of the principal emporiums of trade on China's greatest river, but possesses many ancient temples and other structures of more than ordinary historic interest. Next the company's boats arrive at Nanking, the ancient capital of China, some 212 miles from Shanghai. Nanking was long the seat of government under the Ming emperors, and the colossal walls they constructed, 40 to 90 feet high and 22 miles in circumference, still stand to attract the keen attention of every traveller. Having been the national capital for so many centuries Nanking has many interesting places and buildings, while the celebrated Ming tombs are not far away. Some fifty miles farther up the river one comes to Wuhu, with its pretty environs of undulating hills, its quaint street scenes, and its famous rice market. Here connections may be made with Luchow and other important centres. The boat next calls at Kiukiang, 444 miles above Shanghai, one of the chief tea markets of China, and also a famous centre of the porcelain market, the latter being the finest made in China. From here the traveller may take a trip to Kuling, one of the most attractive summer resorts in China, with bracing atmosphere and splendid natural scenery. Finally the steamer moors at the Hankow pier, after a trip of 600 miles from Shanghai, the fine city of Wuchang being directly opposite. Hankow is the great metropolis of central China whence trade branches out into all the famous nine provinces, and is destined one day to become the Chicago of the Far East, the population being already nearly one million. The foreign settlement at Hankow is pleasantly situated on an expansive area a little to the south of the native city, running some five miles along the river front.

From Hankow the traveller may take any of the other Nisshin Kisen Kaisha lines to the many important centres of trade and population that lie along the higher regions of the Yangtsze. Starting for Ichang the boat calls at Yochow at the entrance to Lake Tunting,

one of the finest and most picturesque inland sheets of water in China, sixty miles long and thirty wide. The home of numerous mandarins and the Commissioner of Maritime Customs, Yochow is a pleasant place to stop over, having enough places of antiquarian interest to occupy all the time at one's disposal. Some seventy miles farther on the boat arrives at Shasi, another interesting place; and then, after a voyage of 387 miles from Hankow, the city of Ichang is reached, with its commodious wharves and great walls and well-placed foreign settlement. The scenery around Ichang is very beautiful, with magnificent green hills rising in every direction; and some five miles away is the noted gorge where the river narrows between precipitous cliffs to about four hundred yards, and affords one of the most picturesque boat trips imaginable. It is really equal to anything on the Rhine or the Hudson. Proceeding up the Siangkiang River from Lake Tunting the boat arrives at the fine old city of Changsha, said to be one of the cleanest cities of China, with many interesting sights and a population of over half a million. About 18 miles farther the steamer reaches Siangtan, a great distributing centre for rice, tea, and coal.

To reach the interesting old city of Changteh one must take the boat from Hankow-proceeding up the Yuen River, the place being a centre of vegetable oil industry. Soochow, the Venice of the Orient, is also a place of noted scenes, and famous for its exquisite silks and brocades. One may also visit Hangchow, said to be the prettiest city in China, and the provincial capital of Chekiang. It is a trip of not more than 113 miles from Shanghai and should not be omitted by any one who desires to see the best part of the country. Not very far from Hangchow the famous tidal bore is to be seen, considered one of the wonders of the world. The best time to witness it is at the time of the autumn equinox, two days after full moon.

It will thus be seen that the steamers of the Nisshin Kisen Kaisha afford every accommodation for seeing the most accessible and interesting portions of ancient China at reasonable expense. The entire voyage from Shanghai to Hankow on the main line of the Yangtsze costs no more than 40 Mexican dollars, first class, and 25, second class, and other trips in proportion. All information will be gladly supplied and tickets arranged by application to any of the company's offices.

THE TOYO KISEN KAISHA

THOUGH among the youngest of Japan's great steamship companies, having been founded only in 1896, the Toyo Kisen Kaisha, or Oriental Steamship Company, has made a remarkable record of progress and efficiency.



TOYO KISEN KAISHA, LTD.: S. S. "TENYO MARU" LEAVING WHARF AT YOKOHAMA—HEAD OFFICE AT TOKYO—"SIBERIA MARU," 20,000 TONS—"KOREA MARU," 20,000 TONS—"SHINYO MARU," 22,000 TONS, SISTER SHIP OF "TENYO MARU"

On a capital of 32,500,000 yen the Toyo Kisen Kaisha runs two trans-Pacific lines: one to the United States and the other to South America. The North American line maintains a fortnightly service between Japanese ports, Honolulu, and San Francisco on the one hand, and Shanghai, Manila, and Hongkong on the other. The eight magnificent boats on this service have earned a well-deserved reputation for comfort, speed, and punctuality, forming one of the most popular lines between America and the Orient. Indeed, on any of the company's ships passages usually have to be engaged long beforehand if passengers are to avoid inconvenience as to dates of sailing.

The larger ships of the Toyo Kisen Kaisha, such as the *Tenyo Maru* and the *Shinyo Maru*, were built in the Mitsui Bishi yards at Nagasaki, have a displacement of 22,000 tons, a speed of over 21 knots an hour, and are among the finest boats crossing the Pacific, being fitted with turbine engines, consuming liquid fuel, and possessing all the up-to-date appointments of the famous Atlantic liners. The vessels are 570 feet long, 63 feet beam, and can carry 261 first class and 73 second class, as well as 742 stowage passengers. Three spacious decks afford 4,000 feet of promenade area, while the cabins are of liberal dimensions, the dining saloon and ladies' parlour being beautifully decorated and of ample proportions. The lounge, library, and smoking rooms are also artistically finished and well adapted to their purposes. Indeed, every modern device for the comfort and safety of passengers has been employed in the construction of these palatial steamers, representing, as they do, not only the highest expression of the shipbuilder's art in material, construction, and stability, but providing that splendour, ease, and space that travellers nearly always appreciate. These vessels have been built in conformity with Lloyd's exacting requirements and the equally stringent regulations of the Japanese Government. The other four vessels of the company's American line are all over 8,800 and up to 20,000 tons displacement, and make speedy voyages with every convenience that the most fastidious traveller can require. Of all the steamers leaving the Golden Gate bearing the tourist westward over the vast Pacific, none are more palatial, safer, or more fleet than those of the Toyo Kisen Kaisha.

The enterprise of the Oriental Steamship Company, however, is not limited to providing fast and luxurious service between the United States and the Far East, as the company has also a fine line of steamers plying between Japan, Hongkong, and South

America, a venture that began when the Toyo Kisen Kaisha was a pioneer in this direction, but which has been attended by signal success. The vessels of the South American line, three in number, are from 14,000 to 18,000 tons displacement, and run regularly between points in Japan and Hongkong, *via* Honolulu, Hilo, San Francisco, Los Angeles, Salinas Cruz, Panama, Callao, Iquique, and Valparaiso. This line affords the only direct service between the Orient and South America *via* San Francisco. The company has in addition a fine service of tank steamers, carrying oil from California to Japan and the Far East.

The president of the Toyo Kisen Kaisha is Mr. Soichiro Asano, a gentleman of great personality, originality, and achievement, to whom the company owes much of its remarkable success. Though associated with several other important national enterprises, Mr. Asano seems never too busy to take a keen and personal interest in the passengers travelling by the Toyo Kisen Kaisha, often inviting them in parties to his magnificent residence in Tokyo and making their first visit to Japan one of warm welcome. Two of his able assistants are Mr. R. Asano, a graduate of Harvard University, and Mr. Nakashima, at the head office of the company in Yokohama. The Toyo Kisen Kaisha has reaped a great harvest during the war and is now promoting hotel enterprises, having purchased and reconstructed the Oriental Hotel at Kobé, for the comfort and accommodation of travellers to the Far East.

THE YAMASHITA KISEN KABUSHIKI KAISHA (YAMASHITA STEAMSHIP COMPANY, LIMITED)

This company, whose history is one of rapid expansion, covers a wide range of activities. Beside the shipping business it is conducting a general brokerage and mercantile agency, trading in fuel, directing mining and dock operations, and in other ways stimulating and developing the industrial and business energies of the Empire. The capital of the company amounts to Yen 10,000,000 and the Board of Directors comprises the following: President, Mr. K. Yamashita; Vice-President, Mr. K. Matsuki (late President of the Tokyo Municipal Electric Bureau and Director of the Imperial Board of Railways); Managing Directors, Messrs. M. Itani and S. Iata; Director, Mr. B. Hayayashi, and Auditor, Mr. T. Machida, President of the Uraga Dock Company.

The Yamashita Company originated with Mr. K. Yamashita, who founded the business in 1894 at which time he was Manager of the Yokohama Coal Company. Mr. Yamashita

was conspicuously successful, and his business having developed to embrace other lines of trade, he rapidly added one department after another to his activities. He opened a shipping and forwarding business in 1903 with the *S. S. Kisagata Maru*. Eight years later he formed a partnership and instituted the Yamashita Steamship Company, which in the following year (1912) took over the Nippon Shosen Kwaisha, a steamship company with several vessels. This step gave the Yamashita Company a foremost place in the shipping industry, and started it on its real career of prosperity, the concern being noted already before the present world war as one of the leaders in Japan's mercantile marine. In May, 1917, the company was reorganised as the Yamashita Kisen Kabushiki Kaisha, a limited liability corporation controlling enormous interests.

The company's regular fleet is as follows: *Teikoku Maru*, *Itsukushima Maru*, *Buyo Maru*, *Bushu Maru*, *Asahi Maru*, *Otaru Maru 2nd*, *Otaru Maru 3rd*, *Echigo Maru*, *Togo Maru*, *Akebono Maru*, *Toyoukimi Maru*, *Doyo Maru*, *Sodegaura Maru*, *Yoshida Maru 1st*, and *Yoshida Maru 2nd*. These vessels, with three others which are nearing completion, give the company a gross tonnage of 60,276, and a deadweight carrying capacity of 82,729 tons. In addition to this fleet the Yamashita Company has chartered rights over the following vessels: *Uraga Maru*, *Rokuko Maru*, *Shokwa Maru*, *Miyo Maru*, *Fusan Maru*, *Kinko Maru*, *Katori Maru*, *Tōto Maru*, *Chiyoda Maru*, *Iirado Maru*, *Toshima Maru*, *Chichibu Maru*, *Etsuyo Maru*, and the *Masaki Maru*.

The company's business includes that of shipping, forwarding, chartering, and brokerage, and among its agencies is that of the London Marine Insurance Co., handling ordinary and war-risk insurance. A big trade is done by the Yamashita organisation in domestic and foreign fuels. Among the subsidiary companies directed by the Yamashita combine are the Yamashita Sekitan Kabushiki Kaisha (Yamashita Coal Co., Ltd.), capital Yen 1,000,000; Fukushima Tanko Kabushiki Kaisha (Fukushima Coal Mining Co., Ltd.); capital Yen 2,000,000, and the Honbetsu Tanko Kabushiki Kaisha (Honbetsu Coal Mining Co., Ltd.), capital Yen 1,000,000. The two coal mines referred to are now set in working order and they are expected within a year or two to have an annual total output of 600,000 tons of coal. In order to govern these various enterprises Mr. Yamashita formed the Yamashita Gomei Kaisha, an investing organisation.

Mr. Yamashita intends to take a big step in the marine insurance business by accepting



YAMASHITA KISEN KABUSHIKI KAISHA: THE NEW BRANCH OFFICES AT TOKYO — S. S. "YOSHIDA MARU"

one-quarter of the shares in the Fuso Marine Insurance Company, which is expected any moment to be established under his auspices with a capital of Yen 10,000,000. The great Yamashita Company is also deeply interested in shipbuilding, having bought up a large number of shares in the Uraga Dock Company. It is further intended to open up iron and steel works, so it may be seen to what an important and varied extent the Yamashita concern is interested in general affairs, and how rapid and substantial has been its development. The head office of the company is at 47 Nichome, Sakae-michi, Kobé. Branches are maintained at 37 Itchome, Kitajimacho, Nihonbashi-ku, Tokyo, and at 3114 Yo-chome, Higashi Honmachi, Moji. Agencies of the Yamashita Kisen Kabushiki Kaisha exist at London, New York, Seattle, San Francisco, Honolulu, Shanghai, Hongkong, Singapore, Penang, Colombo, Bombay, Port Said, and Sydney (Australia).

(See also page 732.)

KABUSHIKI KAISHA SHOSHO-YOKO

THIS concern is one of those remarkable developments of the past two decades in Japanese commerce and industry, and already large and important though it is, it is certain to play an even yet more important part in the economic life of Japan in the not distant future. The Shosho-Yoko has far outgrown many similar businesses, and its operations are widespread and varied, covering a whole range of industrial and commercial activity, not only in Japan, but in China, and farther afield.

The Shosho-Yoko was originally established in 1889 by the late Mr. H. Shimomura, the founder of the Hokkaido Colliery and Railway Company, who was renowned as one of the most enterprising business men of his day in Japan. Mr. Shimomura was the pioneer of the export of Japanese hardwood sleepers from Hokkaido to North China at the time when that territory was being developed by railways. In fact this was the first purpose of the concern, and as an experiment it was watched with great interest, and its success directed attention to the enterprise of the Shosho-Yoko. It was in 1894 that Mr. T. Yamamoto, the present principal of the company, entered the service of the Shosho-Yoko as manager of the office at Tientsin. Mr. Yamamoto was only twenty-two years of age at the time, and was fresh from the Agricultural College at Sapporo, Hokkaido, when he entered upon a business career which has been conspicuously brilliant. He showed himself to be a man of extraordinary business capacity and energy, and under his management the Shosho-Yoko grew from a compara-

tively small firm into a great enterprise. Mr. Shimomura retired, and Mr. Yamamoto took entire charge of the business, expanding it in all directions. At present it is registered as a limited company with a capital of 5,000,000 yen, but its annual business transactions embrace a sum of nearly fifty million yen. The operations of the Shosho-Yoko are conducted under four departments, *viz.*, Timber, Coal, Shipping, and Shipbuilding. The Shipping Department has, since the outbreak of the war, been enormously enlarged.

The Shosho-Yoko has the distinction of having introduced the Kaiping coal to Japan. This operation resulted from a trial shipment some eight years ago when one of the company's steamers carrying timber from Hokkaido to China, returned with a trial shipment of coal, and demonstrated its true value for steam and general purposes, particularly for gas making and for smelting coke, for which latter purpose it exceeds in value the best Japanese coal. The Shosho-Yoko is now sole sales agent in Japan for the Kailan Mining Administration which operates the enormous coal fields of Kaiping territory. This enterprise of the Shosho-Yoko, like the original experiment of shipping Japanese hardwood to China, was regarded as a foolish move, in view of Japan's own great coal-producing capacity, and the result of the trial shipments was watched with much interest. When its success was seen, the energy and foresight of Mr. Yamamoto and his company received another great advertisement. The success of the move may be gathered from the fact that now over 600,000 tons of Kaiping coal are annually imported to Japan. Continuing a progressive policy the Shosho-Yoko purchased its own collieries in Japan, taking over the Koyanose Colliery Company at the end of 1916 and purchasing the Fukuoka coal mines at Kyushu early in 1917. A vigorous development policy was put in force and these collieries are now turning out 20,000 tons of the best quality coal per month. New shafts are being sunk and it is expected that the output from the Fukuoka mines alone will be raised to 700,000 tons per annum. To handle this output the Shosho-Yoko has not hesitated to spend its money on new wharves and shipping plant. The company is also interested in the Kanko Mining Company at Kankonando, Chosen, which produces the only bituminous coal in the dependency. Another enterprise associated with the coal-mining interests of the Shosho-Yoko is the establishment of a coke works at Higashi-Kanagawa, near Yokohama. This factory is now producing 100 tons daily of the best quality of smelting and industrial coke, for which the demand in Japan has increased enormously owing to the rapid expansion of

engineering and other manufacturing works of all classes.

Of the original operations of the Shosho-Yoko, the shipment of Japanese hardwood for railway and similar purposes, it need only be said that this industry has steadily progressed. The leading buyers are the Kailan Mining Administration which use the company's mining props exclusively, and the railways of North China, as well as the principal Chinese contractors. Although this department of the Shosho-Yoko business does not enjoy the same degree of prosperity as other departments, owing to high freights, it is nevertheless one of which the concern is justly proud because it was the pioneer of an important industry. The cutting and preparation of timber is going on on a large scale at Saghalien, Hokkaido, and Hoki, and the annual sales of such products as mining props, sleepers, round poles, square logs, etc., in China and Japan aggregate about 2,000,000 cubic feet.

The Shipping Department of the Shosho-Yoko was originally established for the sole purpose of handling the timber and coal shipments, but upon the outbreak of the war Mr. Yamamoto, who is especially quick to seize an opportunity, realised the impending shortage of tonnage, bought several ships, and chartered as many more as his success allowed. Again it was considered in general business circles that this step was an audacious one, but it was a decision not based on a desire for speculation, but upon the soundest judgment and foresight. Once more the success of the Shosho-Yoko policy had to be admitted. To-day the firm's house-flag with the character "Matsu" (pine) is to be seen not only in every port of Japan and China, but also in British and American ports. The investment in ships can not fail to remain a successful one, because even if after the war freights fall, the Shosho-Yoko will have hundreds of thousands of tons of its own products to transport, and thus derive the benefit of reduced freights and its own management of the vessels. Of the Shosho-Yoko fleet five large vessels are engaged in trading overseas in Europe, America, the South Sea Islands, and the Pacific. The remaining vessels, mostly on time charter, are engaged in the Chinese and coastwise traffic. Following are the ships owned by the Shosho-Yoko: *Daiten Maru* (5,800 tons), *Daisai Maru* (4,800), *Tansan Maru* (3,800), *Miyo Maru* (3,350), *No. 6 Fukusan Maru* (1,420). Total, 5 vessels, 19,170 tons. Chartered steamers: *Rokko Maru* (3,600 tons), *Omuro Maru* (3,400), *Yesan Maru* (4,600), *Shokwa Maru* (3,300), *Paling Maru* (3,100), *Nichihoku Maru* (2,800), *Kinko Maru* (2,700), *Takeshima Maru* (2,100), *Kotobuki Maru* (1,850),



S. S. "DAITEN MARU" — TIMBER DEPOT, SAGHALIEN, SHOWING STOCKS OF MINING PROPS AND SLEEPERS ON THE PRIVATE RAILWAY OF THE SHOSHO YOKO, CONNECTING THE TIMBER DEPOT WITH THE SEAPORT OF ODOMARI — NISHISHIN SHAFT, FUKUOKA MINES, OWNED BY SHOSHO YOKO — HEAD OFFICES OF THE GOSHI KAISHA SHOSHO YOKO, TOKYO



TOKYO SHIPPING CO., LTD.: TYPE OF STEAMER OWNED BY THE COMPANY—THE GENERAL OFFICE—THE MANAGER'S PRIVATE OFFICE

Taishu Maru (1,800), *Fuyo Maru* (1,600), *Yahiko Maru* (4,000), *Miyoshino Maru* (3,900), *Yechigo Maru* (3,600), *Karafuto Maru* (3,150), *Heiwa Maru* (3,000), *Fudo Maru* (2,600), *Choko Maru* (2,100), *Yeiko Maru* (1,900), *Dainichisan Maru* (900), *Sanpeisan Maru* (900). Total 21 vessels, 56,900 tons.

The Shosho-Yoko has now organised a dockyard company with a capital of Yen 1,000,000, to construct dry-docks in the harbour of Yoshiura, and the work is being advanced at such a rate as to warrant the hope that in the course of a few months the yards will be able to turn out five steamers of from 2,000 to 3,000 tons, and two vessels of 5,000 tons each. There is no doubt that for such an undertaking the outlook is very bright.

From this recital of the activities of the Shosho-Yoko it may readily be seen what a vigorous and enterprising concern it is, and how wide-spread are its activities. The success attained by Mr. Yamamoto has been most pronounced, and all the more conspicuous because his efforts have been directed generally in new lines of enterprise.

The head office of the Shosho-Yoko is at

3-chome, Ginza, Kyobashi-ku, Tokyo. The Shipping Department is at No. 5 B, Kaigandori, Kobé. It also has branches at Tientsin, North China, Nagoya, Osaka, Wakamatsu, Imajuku, Hakata Bay, Yonago, Hoki, Odomari, Saghalien, Chinwangtao, and Yokohama. Mr. Yamamoto is Managing Director. Mr. T. Ogawa is chief of the Shipping Department. Other officers of the Shosho-Yoko are Mr. N. Inoh, Manager of the head office, and Mr. I. Mori, General Secretary.

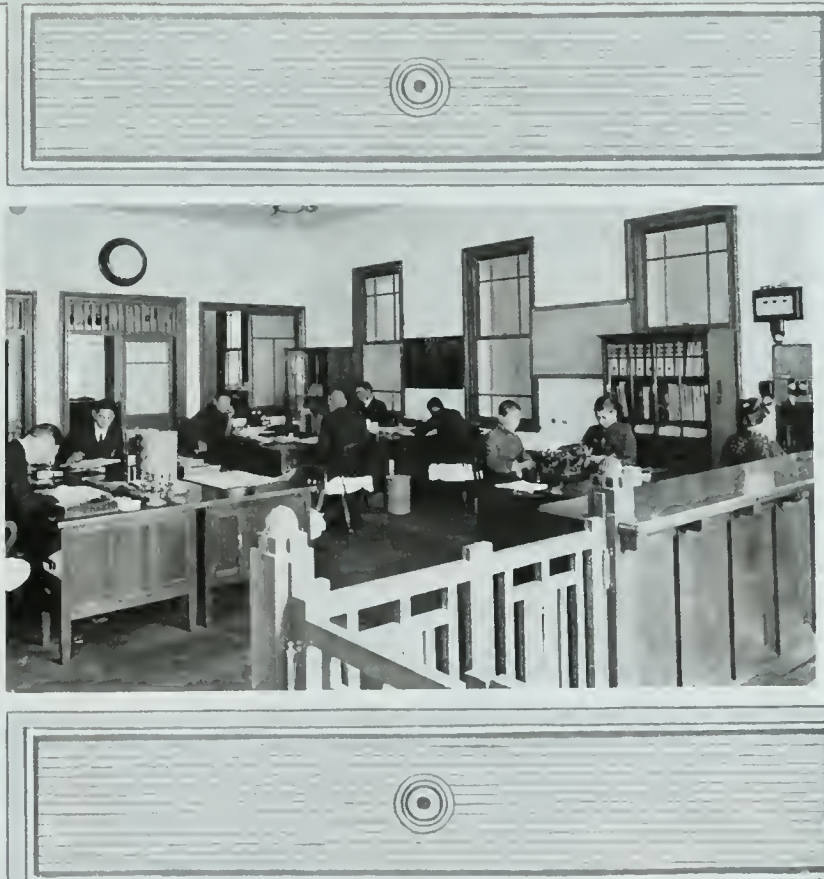
THE TOKYO SHIPPING COMPANY, LIMITED

A STRIKING instance of the vigour with which Japanese business men have entered into the shipping industry is furnished in the case of the Tokyo Kaiun Kabushiki Kaisha, or the Tokyo Shipping Company, Ltd. This company came into existence on June 3, 1917, under the auspices of Messrs. Kiyomatsu Tokushima, Nobujiro Iguchi, Makoto Ogawa, and Hanroku Ota. The initial capital was Yen 2,000,000 which was quickly subscribed. At once the new company chartered vessels, and entered upon the lucrative business of

marine transport, at the same time placing orders for the construction of steamers of modern design for deep sea freight carrying, and also for the coastal trade. On October 1, 1917, an amalgamation was effected with the Hokkai Shipping Company, Ltd., and the capital of the joint concern was raised to Yen 2,750,000. What a rapid development has taken place may be seen from the statement of the fleet, on the next page, now under the control of the company.

The Tokyo Shipping Company, Ltd., has also purchased the *Kirishimasan Maru*, of 7,300 tons D. W., for delivery on December 31, 1917, and has under construction the vessels shown in the second table on the next page.

It can easily be seen what energy has been displayed by the new company during the few short months it has been in existence, to enable it to command such a volume of shipping. The policy of the directors is an ambitious one, though well justified by the healthy tone which prevails in Japanese shipping circles, and by the strong demand that will obtain, even when the war is over, for



THE HEAD OFFICE OF MESSRS. TANIMICHI & CO., TOKYO

shipping space. Mr. Tokushima is the Managing Director of the Tokyo Shipping Co., Ltd., and his co-directors are Messrs. Iguchi, Ogawa, and Ota. The head office of the company is at No. 7 Hiramatsu Cho, Nihonbashi-ku, Tokyo.

TANIMICHI AND COMPANY,
INCORPORATED

MESSRS. TANIMICHI & Co., INC., transact a large volume of business as steamship agents and ship and freight brokers, their business having expanded considerably since the great development in the shipping interests of Japan. The firm is one of the oldest established concerns in this line of activity, having been founded in 1889 by the late Mr. Eikitsu Tanimichi. It was originally a private concern, but in February, 1908, the business was incorporated as the Goshi Kaisha Tanimichi Shoten with a capital of Yen 10,000. The partners are Messrs. Seinosuke Tanimichi, Manager, Kotaro Tanimichi and Masao Nakai, the liability of the latter two being limited, in accordance with the law under which the firm was incorporated. Messrs

| | | | |
|------------------------|-----------------------|-----------|------------------|
| Vessels owned: | <i>Takeno Maru</i> | | 1,800 tons D. W. |
| " " | <i>Tenun Maru</i> | | 910 " " |
| Vessels under charter: | <i>Taisho Maru</i> | | 4,500 " " |
| " " " | <i>Taman Maru</i> | | 4,500 " " |
| " " " | <i>Tsuru Maru</i> | | 4,250 " " |
| " " " | <i>Kaga Maru</i> | | 3,450 " " |
| " " " | <i>Otaru Maru I</i> | | 3,200 " " |
| " " " | <i>Kissho Maru</i> | | 3,200 " " |
| " " " | <i>Kabafuto Maru</i> | | 3,150 " " |
| " " " | <i>Toryo Maru</i> | | 2,850 " " |
| " " " | <i>Fukuju Maru</i> | | 2,350 " " |
| " " " | <i>Chisan Maru</i> | | 2,300 " " |
| " " " | <i>Mansei Maru II</i> | | 2,250 " " |
| " " " | <i>Jun Maru</i> | | 1,585 " " |
| " " " | <i>Kashin Maru</i> | | 1,450 " " |
| " " " | <i>Shunyo Maru</i> | | 500 " " |
| " " " | <i>Kinko Maru I</i> | | 480 " " |

| | | |
|--------------------|-----------|------------------|
| <i>Tama Maru</i> | | 4,900 tons D. W. |
| <i>Sumida Maru</i> | | 2,000 " " |
| <i>Ayase Maru</i> | | 1,600 " " |
| <i>Onuma Maru</i> | | 870 " " |
| <i>Saru Maru</i> | | 230 " " |

Tanimichi & Co., Inc., have their head office at No. 12 Nishigashi, Nihonbashi-ku, Tokyo, and a branch has been established at Kobé,

where the bulk of the shipping business is now being done. The cable address of the firm is "Tanimichi," Tokyo.





THE BENTEN-DORI, A FAMOUS SHOPPING CENTRE FOR FOREIGNERS

XII. THE PORT OF YOKOHAMA

HISTORY AND PROGRESS—GOVERNMENT, FINANCE, COMMERCE, AND
INDUSTRY—COMMERCIAL NOTICE

YOKOHAMA is the gateway through which most travellers find their way to Japan. Its name seems familiar even to the untravelled, while to every tourist it recalls first impressions of the Far Eastern wonderland. Approaching the city from the sea it seems a vast aggregation of houses covering the extensive reclaimed foreshore, with well inhabited hills rising like sentinels in the background. The harbour is filled with shipping of every sort and nationality; and on shore everywhere are signs of active industry and trade. This is the ocean gateway through which Japan pours a great part of her silk and other merchandise into the markets of the world. The premier port of Japan in volume of trade, Yokohama claims over 40 per cent of the nation's total foreign commerce, and has a larger foreign population than any other city in Japan.

Yet sixty years ago Yokohama was but a tiny fishing village on a marshy beach near the town of Kanagawa. When the Tokugawa

authorities concluded the first treaties with Western powers, opening up Japan to foreign trade and intercourse, Hakodate, Kanagawa, and Nagasaki were designated as open ports. Soon afterward the French Minister established his residence there, and the British and American consuls were lodged in temples. A few foreign merchants had by this time settled in Kanagawa; but, as the town was on the main highway of the Empire, the *Tokaido* as the Japanese called it, the authorities thought the proximity of foreigners to the route taken by the great daimyo processions on their way to the shogun's capital might engender foreign complications. This actually did happen in one notable case when the Englishman, Richardson, was attacked and killed by the men of Satsuma because he failed to dismount as their daimyo was passing. Consequently the Government deemed it safer to have the foreign settlement at Yokohama, although the treaties definitely designated Kanagawa as the site of the open port.

The foreigners, in the person of their consuls, protested against the change, on the ground that Kanagawa was the place named in the treaties, and that it was an unfriendly act to banish the foreigners to the insignificant fishing village of Yokohama. The authorities of the shogun were inclined to heed the protest as reasonable, but Midzuno, lord of Chikugo, interfered and insisted on the decision of the Government being acted upon. So the foreign consuls were duly informed that, although the site selected for the foreign settlement was not exactly in Kanagawa, it was at the northern boundary of the district; that if foreigners were allowed to frequent the main highway of the Empire collisions between them and obstinate samurai were likely to arise; that although Yokohama had no harbour it was a better site for the construction of one than Kanagawa, where the foreshore was precipitous, and as Yokohama was in the vicinity of watering places like Kamakura and Enoshima, it was



THE LAW COURTS, YOKOHAMA

certain to become an important town and well suited to the residence of foreigners. The foreigners at first were not disposed to fall in with the decision of the authorities, for, being not very familiar with Japanese customs, they supposed that if they were cut off from the daimyo routes they would be deprived of valuable opportunities of trade with the wealthy feudal chieftains. However, at the order of the Government, many foreign merchants opened offices in Yokohama, and the place soon proved to be a much better site for trade than Kanagawa.

Those visiting the large and flourishing city that is now known as Yokohama can hardly realise the vast changes that have taken place since foreigners first began to settle there. From the spacious and imposing waterfront of to-day, with its magnificent buildings, onward to the end of the settlement at Honmoku, there stretched in the old days nothing but a reedy marsh with heaps of shells here and there, together with a few scattered huts, hardly more than a hundred in all. With the transfer of the foreign concession to Yokohama a great transformation at once began, of which the present city is the proud achievement.

Originally there were three villages, Yokohama, Ota, and Tobé, swamps and streams separating them; but when the merchants began to flock into the newly opened port, all those doing business with the Government were ordered to engage in reclaiming the land as far as possible, until finally the three tiny villages became one large town. Soon the people in Kanagawa found that if they wanted to deal in the best shops they had to go over to Yokohama, and it was not long until they decided that Yokohama was also

the best place to live. Foreign merchants coming to Yokohama took land on perpetual lease for a nominal ground rent and exempt from further taxation. Many of these lots are still held by foreign firms, and as the value has in the meantime enormously increased the authorities have sought to levy taxes over and above the original agreement. The attempt, however, was frustrated by an appeal to The Hague Tribunal, which resulted in a decision in favour of the contention of the foreigners. There are some 650 of these perpetual leases still valid in Yokohama, representing about 1,353,628 square feet of land, paying an annual rental of 60,406 yen. The first foreign building in Yokohama was owned by a British firm, as was also the second, while the third one was owned by an American firm; and this proportion has continued pretty well ever since. These pioneers in the foreign settlement, following the instincts of their civilisation, at once set about making a model city, and by 1869 the whole waterfront was improved. Ten years later Yokohama had been completely transformed from a village to a great and growing city. In 1860 there were only 100 houses, which by 1867 had grown to a population of 21,000, and in 1897 to 187,400. To-day the population of the port is over 450,000, with some 90,000 households. Nowhere in Japan are the benefits of Western influence more apparent than in Yokohama, which, so far as the foreign settlement goes, is more like a progressive Western city than an Oriental port. It is only fair to state, however, that since the revision of treaties and the abolition of extraterritoriality, the Japanese authorities in Yokohama have utilised their assumption of autonomy to preserve as far as possible the

policy initiated by the foreigners in the settlement, though they have not always been as successful as they might desire. Foreigners in Yokohama, of whom there are at present about 8,000, reside for the most part on the beautiful eminence known as the Bluff at Honcho, with the exception of the Chinese, who occupy numbers 120 to 160 in the settlement. The influence of foreigners has been rendered still more conspicuous by the erection of a magnificent City Hall in commemoration of the opening of Yokohama to foreign trade, the cost of which was borne by the Japanese, with liberal subscriptions from the leading foreign firms of the port. Yokohama has the most modern streets and gardens and the finest hotels in Japan. The Japanese city is something apart, most of the best shops being in the foreign settlement. The centre of native life is Isegaki-cho, where kinematograph halls, theatres, and restaurants present a gay scene, especially at night. The principal streets are in the lower town near the harbour, where are also located the Government and public offices as well as the foreign consulates and great banks.

GOVERNMENT, FINANCE, COMMERCE, AND INDUSTRY

FROM an administrative point of view Yokohama may be regarded as a provincial capital, as it is the seat of the Prefectural Office, as well as having its own municipal government, with mayor, municipal council and all the latest methods of management adopted in Western cities. There is a well organised police force, modelled in some measure after English methods, British officers having been employed in the early days of its organisation. Owing to constant danger from devastating conflagrations the Yokohama fire brigade is one of the best in the Empire, having over a thousand men. The municipal council, which administers the affairs of the city, has under its control the gas works, waterworks and other undertakings, including the tramways, which, nevertheless, are owned by a private company. Special attention has been paid by the city authorities to the development of education, the municipality maintaining a good commercial school and an adequate number of secondary and primary schools, and in addition there are several good mission schools. The total number of school children in the city is over 50,000.

Being one of the greatest financial centres of the Empire, Yokohama has branches of all the great banks, and the head office of the Yokohama Specie Bank, which is second only to the Bank of Japan, but first in the promotion of foreign trade. In addition to the numerous Japanese banks there are branches



VIEW OF YOKOHAMA, TAKEN FROM THE MEMORIAL TOWER, LOOKING WEST ALONG MAIN STREET,
THE YOKOHAMA SPECIE BANK BUILDING IN THE LEFT BACKGROUND

of the Hongkong & Shanghai Banking Corporation, the Chartered Bank of India, Australia, and China, the International Banking Corporation, the Russo-Asiatic Bank and others. The annual revenue of Yokohama City is about 3,000,000 yen and the expenditure usually a trifle less. For gas, waterworks, hospitals, and cemeteries there is a separate and larger account. The city has some 250 miles of gas mains connected with 16,991 houses, representing 70,000 lamps. Gas is used for the greater part as motive power and for street lighting, as most of the houses are lighted by electricity. The gas works consume only 22,125 tons of coal annually, and the revenue from the service is about 900,000 yen a year, on an investment of 1,041,364 yen. Yokohama was one of the first cities in the Empire to put in a modern system of waterworks, from which the annual revenue is 572,684 yen and expenses 444,258 yen. The total foreign indebtedness of the municipality is 14,000,000 yen, involving an annual interest of 780,000 yen, most of the debt having been incurred



THE MEMORIAL HALL, ERECTED BY JAPANESE
AND FOREIGN RESIDENTS TO COMMEMORATE
THE OPENING OF THE PORT

in putting in the gas works and the water system. The drainage system of Yokohama, which is superior to that of most Japanese cities, was carried out on the advice of an English engineer.

Commercially, of course, Yokohama has witnessed its greatest development. So remarkable has been the growth in this direction in recent years that a new harbour works was found absolutely necessary to meet the situation; and already at great outlay, borne largely by the Government but shared by the municipality, fine new customs piers with adequate warehouses have been constructed. The harbour is spacious and well protected by breakwaters and can accommodate vessels up to 20,000 tons. In the early days the Government did not encourage expansion of foreign trade, even taking special steps to check it; but the inauguration of a modern government and the introduction of European methods proved that the policy was a mistaken one, and a revolution was soon brought about in commercial practice and progress. Imports continued to exceed exports almost



THE WEST END OF MAIN STREET, YOKOHAMA, LOOKING TOWARD THE ELECTRIC RAILWAY STATION

every year between 1868 and 1876. The decade beginning with 1882 saw a great increase in the demand for Japanese silk abroad, and then exports commenced to show a favourable balance of trade. The table at the foot of this page will indicate the rate of growth in Yokohama's foreign trade at intervals of some years. It is apparent that Yokohama's ascendancy to a paramount position in the foreign commerce of the nation is assured, and when the Panama route is fully taken advantage of it will lend further impetus to Yokohama trade.

It is not too much to say that similar progress is being made by Yokohama along industrial lines, though this is a new phase of the city's ambition. By decreeing that water for industrial purposes should be furnished free for the first five years of a factory's establishment, and the exemption of new industries from taxation for the same period, great inducements were offered by the Yokohama municipality for the promotion of new enterprises, and capitalists from Tokyo, Kōbe and other industrial centres

began to secure lots and build factories in Yokohama. In 1911 there were practically no industries of any size or significance in Yokohama, except, of course, those associated with the business of exporting. By 1917, however, there were no less than 125 new factories, representing some 500 companies and a capital of nearly 200,000,000 yen. Among the new undertakings must be mentioned several important shipyards capable of turning out large vessels.

The interests of merchants and manufacturers in Yokohama are watched over by an efficient native Chamber of Commerce, while the Foreign Chamber of Commerce has done and is doing excellent work in suggestion and

leadership, to promote the extension of foreign trade. Nowhere in Japan is there keener rivalry between the native and the foreign merchant than in Yokohama; but the foreigner seems to be holding his own exceedingly well, as may be seen by reference to the article on Exports and Imports in this volume, thus proving that the best evidence of a port's prosperity is its power to attract and hold the foreign merchant. The great Silk and Rice Exchanges of the nation are at Yokohama, as well as the Government Silk Conditioning Office, while native industrial guilds to the number of over sixty are another interesting feature of the city's commercial methods. There is but one

| YEAR | EXPORTS | IMPORTS | TOTAL |
|------|-------------|-------------|-------------|
| | Yen | Yen | Yen |
| 1860 | 578,907 | 543,005 | 1,121,912 |
| 1906 | 200,847,000 | 149,070,000 | 349,917,000 |
| 1911 | 225,174,470 | 154,284,552 | 379,459,022 |
| 1916 | 497,653,158 | 209,737,683 | 707,390,841 |

foreign newspaper at present, the *Japan Gazette*, printed in English. The Yokohama race course, situated near Negishi, is one of the finest in Japan, and race-meetings regularly are held. Though Yokohama is too new to possess the historical relics and associations of other Japanese cities, it is a pretty and a pleasant place either to visit or to reside in, while its commercial importance renders it a centre of vital activity to the Empire.

BRETT'S PHARMACY

THE development of Yokohama as the oldest centre of foreign commercial influence in Japan has brought in its train most of the conveniences and services which are usually associated with a modern town or city. In Brett's Pharmacy Yokohama possesses what has come to be regarded as a public institution, as well organised and as large as any similar concern in the Orient. And as a matter of fact Brett's Pharmacy has been established so long, and has grown so entirely in keeping with the development of Yokohama itself, that it can properly be regarded as one of the landmarks of the foreign settlement. The business was founded considerably over thirty years ago. There are very few people who can give the history of the Pharmacy, but all know that it has been in existence, never failing in its services to the general community, a fact which doubtless explains what seems like a lack of interest in the names associated at different times with the business. The original Brett has passed out of present-day knowledge. Through various stages of con-

trol and direction the business has come down to the present time, when it is conducted as a proprietary concern under the management of Mr. H. V. Hawley, M. P. S.

Situated in Main Street, at No. 60, Brett's Pharmacy occupies a singularly central and convenient position for all the foreign residents, or visitors at the leading hotels. The store itself is a large and commodious two-story modern building, with a well arranged interior, and ample accommodation for the dispensary and other departments of a

modern pharmacy. Progressive ideas have kept the business well abreast of the times, and Brett's Pharmacy presents all the conveniences which are looked for in such an institution. Large and complete stocks of all standard British and American drugs, medicines, toilet requisites, etc., are maintained, and with the numerous transient and permanent community continually making their purchases, a busy air prevails. There is a large staff of foreign qualified dispensers, trained in the best colleges. Practically all foreign languages are spoken by the staff, and prescriptions are dispensed in accordance with the pharmacopœias of the country in whose language the prescription is written. This is a consideration and convenience which is greatly appreciated in a community like that of Yokohama, which is very cosmopolitan. It also means much to passing travellers from foreign countries. The attendance at the Pharmacy is all that could be desired, a day and night service being maintained, a qualified foreign chemist being always in attendance.

Brett's Pharmacy has a number of exclusive agencies, amongst which may be mentioned Gerhard Mennen's products; Kolynos Co.'s tooth pastes and other lines; Nyal's toilet requisites and proprietary preparations; and the "B. K." disinfectants, prepared by the General Laboratories, Inc., Wisconsin, U. S. A. This latter agency represents the most recent products in antiseptic research, "B. K." disinfectants having not so long ago been adopted for army medical purposes on the Western Front. Another important



BRETT'S PHARMACY, YOKOHAMA



THE YOKOHAMA UNITED CLUB, ON THE BUND



A PRETTY SPOT IN THE PUBLIC PARK AT YOKOHAMA

agency is that which has recently been acquired for the tabloid products of the famous Burroughs & Wellcome, Ltd. A number of travelling salesmen are now distrib-

uting these various special lines throughout Japan on account of Brett's Pharmacy. Laboratory work has also become quite a feature of Brett's Pharmacy's business, as many as four hundred to five hundred analyses of a clinical and commercial nature being carried out monthly. For some time an American soda fountain was maintained in the store, but with the expansion of business, this department had to be transferred to adjacent premises, together with the department handling the agency for the Columbia Gramaphones.

Under the same management is a modern aerated mineral water and cordial factory, Brett's being the manufacturers of all classes of soda water and other distilled waters, which are such a boon in a country where the water supply is not always above suspicion. In the summer season the plant is worked at full capacity, a staff of fourteen or fifteen being employed. Under the direction of the proprietary of Brett's Pharmacy are branches at Tokyo, Karuizawa (the summer resort), Osaka, and Harbin, Manchuria.



THE BUND, OR WATERFRONT, YOKOHAMA



CHERRY BLOSSOMS

XIII. IMPORTS AND EXPORTS

(YOKOHAMA AND TOKYO SECTION*)

TRADE IN OLD JAPAN—BEGINNINGS OF TRADE WITH EUROPE—UNLIMITED TRADE—CAUSES OF
TRADE EXPANSION—GENERAL SURVEY OF MARKETS—PROPORTION OF RAW MATERIALS
TO FINISHED ARTICLES—PRINCIPAL EXPORTS AND IMPORTS—JAPAN'S TRADE POLICY
—COMMERCIAL INSTITUTIONS—JAPAN'S BUTTON TRADE—COMMERCIAL NOTICES

THE story of Japan's abnormal development and appearance as a rival of more advanced nations in the great trade fields of the world is one of the most interesting and remarkable in the records of modern enterprise. As Japanese history runs back till lost in the mythic ages, it is impossible to say just when the nation's foreign trade began; but in all probability the immigrants from the continent who colonised the coast of Idzumo tried to keep up some measure of communication with the ancestral mainland, and to bring over as far as possible the available necessities of civilisation. There is mention of iron for spears and of earthenware utensils, as well as of silk and hemp, all of which must at first have been imported from Korea. In ancient Yamato imports must have formed a more practical commodity than exports. With the dawn of recorded history,

in the sixth century, we read of horses, cotton cloth, musical instruments, and jewels, as well as of bronze mirrors, coming from the continent. It is safe to assume that with increasing intercourse between Yamato and China in the seventh and eighth centuries went on a corresponding development of trade, though the year's turnover was probably insufficient seriously to affect much one way or the other the finances of the infant empire, since the nation apparently was much more concerned with extracting tribute from Korea than in pushing commercial enterprise. At any rate, trade was sufficient to enable the superior intelligence and civilisation of the early settlers to overcome the savage aborigines, who were left to defend themselves unequally with their prehistoric weapons and implements of war. The very remarkable development of civilisation and culture that characterised the

Heian era (800-1100 A. D.) implied an unusual measure of commercial intercourse with Korea and China, if not with India, promoted, as commerce not infrequently is, by religion.

BEGINNINGS OF TRADE WITH EUROPE

With the advent of Europeans in the sixteenth century Japanese commerce entered on a new phase. The long period of civil strife which the Tokugawa *régime* had ended, must have given prominence to trade in weapons and munitions of war. But just when the land was seething with blood and anarchy a Chinese junk was blown ashore on the coast of Japan with a Portuguese merchant adventurer aboard, who was on the lookout for new fields of trade. He and his two companions quickly saw that Japan was a country well worthy of exploitation, and they returned to their colony with a tale that

* See Page 661.

brought more Portuguese traders, eager to enter the new market. The foreign merchants were welcomed by the daimyo of Japan, the great feudatories competing with one another in their offers of facilities of trade. For half a century or so the Portuguese merchants had things all their own way, but, having taken into their service and confidence a Dutchman named Linshoten, they gave away their secret. In consequence, when the Dutch shook off the domination of Spain, which at the time held Portugal, they resolved to send ships of their own to the East, since they were no longer allowed to deal in Oriental goods at Lisbon. On finding their hated rivals in possession of the field in Japan, the Dutch naturally did all in their power to drive them out by fair means or by foul. When they had finally succeeded in doing this by arousing the suspicions of the authorities against the political motives of the Spanish and Portuguese, English arrived, whom the Dutch in turn hated and tried to hinder in trade. From these bickerings and animosities between peoples of the same religion the Japanese derived a very poor idea of Western merchants, who were so willing to betray one another for the sake of gold; and consequently, in time they obliged all merchants to reside in Nagasaki, the Dutch at Deshima and the English at Hirado, the latter finally abandoning the field.

But the foreigners did a roaring trade while it lasted, amounting to over £660,000 a year; and during the sixteenth and seventeenth centuries they carried out of Japan no less than Yen 100,000,000 in gold, until the shogun had at last to place restrictions on exports of the precious metal. The Dutch made a clear gain of 100 per cent on each voyage, while the English gave up after a loss of some £40,000. The foreigners at any rate succeeded in opening up trade between Japan and the Occident, bringing in firearms, powder, woollens, and various utensils, while taking away silk, lacquer and, above all, gold. There are indications that the Japanese did not fully understand or failed to appreciate foreign methods of barter and trade. The predominance of the military spirit, which always takes instead of gives, and despises the mere bargainer, placed the merchant at some disadvantage; and it is, therefore, all the more remarkable that the foreign merchants did so well. Trade in Japan was carried on by the lowest classes only, who won a reputation as tricksters and barter-mongers. The seclusion policy of the Tokugawa Government proved a serious set-back to foreign trade, which did not revive until the reopening of the country to foreign commerce in the year 1854.



BARON EIICHI SHIBUSAWA, ONE OF JAPAN'S GREATEST BUSINESS MEN

UNLIMITED TRADE

AFTER Commodore Perry's treaty of commerce in 1854, followed by similar agreements with Prussia, France, and England in 1859, the foreign merchant soon appeared in all open ports and began to lay the foundations on which Japan's foreign trade has since been built up. From that time Japan's commercial history has been one of unbroken progress. The first essays at trade were overcast by the gloom of civil war, and some of the earliest imports were in munitions for the respective belligerents of the Restoration period. Foreigners and Japanese were alike ignorant of each other's ways and customs, and consequently of the proper values of what each had to sell. During the early years of the Meiji era trade had to struggle against a depreciated irredeemable paper currency, liable to fluctuations of value from day to day, while a total want of credit and a low productive capacity on the part of the people added further complications to commerce. The nation had practically no manufacturing industries. Exports were confined for the most part to agricultural products such as silk, tea, and rice, the only manufactures being such objects as fans, porcelain, and lacquer. Other difficulties of trade arose from the fact that although Japan was a bimetallic country, silver had practically displaced gold; and as the silver market depreciated throughout the world the reaction on Japanese credit and foreign trade was unfavourable. With the revision of the monetary system in 1871, introducing a uniform currency, and the establishment of a legal system of weights and measures in 1875, together with needed improvements in communications and media of exchange, commerce entered on a new and more progressive phase wherein modern methods became possible.

The general commercial awakening of the nation must in a large measure be ascribed to the efficient assistance of the Government in aiming definitely at improvement of commercial institutions, the establishment of banks and educational facilities and means of communication based on Western systems. The result was a phenomenal growth in the progress of trade, together with greatly improved methods in commercial intercourse. By the year 1878 the total trade of the country had arisen to twice what it was at the beginning of the Restoration in 1868; and ten years later it was nearly three times that of the previous decade. Capital invested in Japanese commercial companies in 1908 was twice that of the ten years before, amounting to over 120,000,000 yen, a sum that jumped to 2,700,000,000 in 1916, and to 10,047,000,000 yen in 1917. In 1908 the total amount of bills exchanged at the national clearing houses was 6,370,000,000 yen, while to-day it is over 20,112,640,000 yen. Thus almost at a bound Japan has passed from the land of romance and cherry blossoms to a country of trade and energetic materialism.

CAUSES OF TRADE EXPANSION

THE two great landmarks in the history of Japan's foreign trade are the war with China in 1895 and that with Russia in 1905. The indemnity of 350,000,000 yen which Japan received from China was largely applied to reform of national currency; and in 1897 the gold standard was adopted, when trade, freed from speculative risks inseparable to fluctuating exchanges in silver currency, rapidly advanced, and lent impetus to manufacturing industries as well. A tide of commercial prosperity seemed to flow over Japan after the war with China. In 1899 the new customs tariff increased import duties from 5 per cent to over 15 per cent; so that from that period the value of goods imported must be taken to represent the cost of goods as landed in Japan, instead of, as before, the cost at the place of production. Mention of a few figures is sufficient to show the remarkable expansion of Japanese trade in recent years, especially, as already suggested, since the wars with China and Russia. At the beginning of the Meiji period in 1868 the total trade of Japan amounted to 26,000,000 yen. Ten years later it had more than doubled, amounting to 56,000,000 yen; while in the succeeding decade it increased fivefold to over 130,000,000 yen. In 1887, about ten years before the war with China, the total value of foreign trade was 96,710,000 yen; but two years after the war with China it jumped to 382,440,000 yen, nearly four times more than the total of ten years earlier. The successful termination of the war with China gave

a tremendous impetus to industrial expansion on account of influx of capital for indemnity; and this rate of increase was steadily maintained up to the time of the war with Russia, one year after which the nation's foreign trade arose to 926,880,000 yen, or more than nine and one-half times the total of 1887. Indeed, it may be questioned whether any other country has shown in its foreign trade such a ratio of progress in a similar period. With the outbreak of the great war in Europe Japanese trade grew to figures still more unprecedented, totalling over 1,833,000,000 for 1916, and in 1917, an abnormal year, the total trade of Japan reached the amount of 2,583,290,000 yen. The causes of this enormous development must be ascribed to an increasing demand for Japanese goods abroad, to rapid increase of industrial enterprise within the country, and especially to the exigencies of the war in Europe.

The following table gives the totals of Japan's foreign trade since 1868:

| YEAR | EXPORTS (Yen) | IMPORTS (Yen) | TOTAL (Yen) | POPULATION |
|------|---------------|---------------|---------------|------------|
| 1868 | 15,533,473 | 10,693,072 | 26,246,545 | ..... |
| 1877 | 23,349,000 | 27,421,000 | 50,770,000 | 35,768,547 |
| 1882 | 37,722,000 | 29,447,000 | 67,168,000 | 37,451,727 |
| 1887 | 52,408,000 | 44,304,000 | 96,712,000 | 39,607,234 |
| 1892 | 91,103,000 | 71,326,000 | 162,429,000 | 41,388,313 |
| 1897 | 163,135,000 | 219,301,000 | 382,436,000 | 43,763,855 |
| 1902 | 258,303,000 | 371,731,000 | 530,034,000 | 46,732,876 |
| 1907 | 432,414,000 | 494,467,000 | 926,880,000 | 48,825,234 |
| 1908 | 378,246,000 | 436,257,000 | 814,503,000 | 49,588,804 |
| 1909 | 413,113,000 | 394,199,000 | 807,311,000 | 50,295,279 |
| 1910 | 458,429,000 | 464,234,000 | 922,663,000 | 50,939,137 |
| 1911 | 447,434,000 | 513,806,000 | 961,240,000 | 51,591,342 |
| 1912 | 526,982,000 | 618,992,000 | 1,145,974,000 | 53,362,682 |
| 1913 | 632,460,000 | 729,432,000 | 1,361,892,000 | 55,467,530 |
| 1914 | 591,101,000 | 595,736,000 | 1,186,837,000 | 57,442,177 |
| 1915 | 708,307,000 | 532,450,000 | 1,120,757,000 | ..... |
| 1916 | 1,116,744,465 | 754,933,723 | 1,833,896,028 | ..... |
| 1917 | 1,596,830,000 | 983,230,000 | 2,583,290,000 | ..... |

Of course the increase of over 40 per cent in imports and 57 per cent in exports, a total increase of over 112 per cent, represented by the war years, can not be taken as normal. To ascertain the actual growth of Japanese trade during the war years the normal ratio of increase must be deducted from the actual. If, for example, the figures for the ten years preceding the war be examined, they will show an increase in the value of imports amounting to 41,229,612 yen, which, had the war not broken out and the average of imports been maintained, would have brought the imports of 1916 up to about 853,120,480 yen, or 96,692,570 yen less than the actual imports for that year, or a fall of over 13 per cent. Comparing exports in the same way for a similar normal period we find an average increase of 34,295,776 yen per annum. There-

fore, had it not been for the war the exports for 1916 ought to have totalled about 735,247,541 yen, which is some 392,220,577 yen below the actual figures, or an increase of 62 per cent in exports due to the war alone. At the same time it should be borne in mind that such calculations deal with values only and not with quantities; and since the prices of almost all commodities have advanced considerably in the war years, the actual quantities of imports and exports should be examined in order to arrive at an accurate estimate of the ratio of increase in Japan's trade. If this be done the results will show a decrease in volume of imports for the year 1916 of about 26 per cent, while exports will show an increase in quantity of about 29 per cent.

GENERAL SURVEY OF MARKETS

A SURVEY of the general position shows that the United States of America stands foremost in Japan's export trade, China coming next,



AN AGREEABLE OCCUPATION — SORTING SILK COCOONS

and indigenous manufactures in the way of luxuries, while to America go chiefly raw silk and tea, India and China taking mostly cotton yarns and textiles, which commodities also had extended sales recently in the South Seas on account of the war. With, perhaps, the exception of cotton hosiery, Japan's latest application of mechanical science plays, as yet, an exceedingly small part in Western markets, where her exports would recently have shown but slight increase had it not been for the war. Most of Japan's manufactures go to Eastern markets, in which direction the ratio of increase is much more pronounced. In the



THE SEAL-CARVER

followed by England, France, Russia, British India, and Italy, Germany and Austria having been eliminated by the war. Asia continues to be Japan's best customer, America coming second and Europe third, though the whole of Europe does not take as much from Japan as the United States or China. The war years saw an extraordinary increase in Japan's trade with Russia, the Dutch East Indies, the South Sea regions, and South Africa, which may or may not continue. There was also a considerable extension of Japanese trade toward Egypt and Australia. In regard to imports Japan still draws most of her stock from British India, England, and the United States, after which come China, the Dutch East Indies, and French India.

The main volume of Japanese exports to Europe consists of foodstuffs, raw materials,

matter of imports, however, Japan gets from Europe chiefly manufactured goods, while deriving her provisions for the most part from Oriental countries. With the increasing and rapid development of domestic industry Japan will probably import less manufactures from the West, and will continue to depend on

Eastern countries for her raw materials. The following table gives Japan's relations with foreign countries in respect to imports and exports.

PROPORTION OF RAW MATERIALS TO
FINISHED ARTICLES

ENOUGH has been said to show that Japan

in a remarkably brief period has developed from a purely agricultural to an important industrial and commercial nation. During the enforcement of her policy of isolation trade depended almost wholly on agriculture, and when the country was again opened to foreign trade there was an immediate influx of Western manufactures and a return trade was at once established. In 1868 trade consisted chiefly of imports of cotton and woollen cloth, and exports of tea and raw silk, the latter covering at least two-thirds of the total value of exports. As time went on, however, Western manufacturing processes were introduced and soon developed to a point where the home demand was being supplied and a surplus left over for exportation. This was particularly the case with such items as cotton goods, sheetings, watches, beer, and groceries, which had changed from being the largest figures among imports to being important exports. This tendency is emphasised by the fact that while the total value of Japanese imports to-day is some forty times greater than the figures of 1868, the importation of cotton is only about five times as great, and of other textiles and manufactured clothing only about thirteen times as great.

The nature of a country's imports and exports is always a good test of its industrial and tradal conditions; for no matter how great its increase of foreign trade may be, the circumstances can not be taken as a sign of permanent progress if imports are chiefly manufactures, and exports mostly raw materials. It has all ready been shown that up to 1877 most of Japan's exports were raw materials, while her machine-made products were all imported, a condition that during the last decade or so has been completely reversed. Thus it has come about that the class of commodities formerly supplied to Japan from abroad has now, in turn, become the chief item in Japan's exports, which accounts for the remarkable development already shown in the country's foreign trade. This steady decline in the importation of manufactured articles simultaneously with an increasing domestic demand for such goods, proves the reality of Japan's industrial progress, fostered largely by her protective tariff. As time goes on Japan will become more and more independent of foreign nations in regard to all manufactured articles, except, perhaps, machinery, pursuing a policy of importing mostly raw materials and exporting finished articles. The table on the next page gives the proportion of raw materials to manufactured articles in imports and exports during thirty years of the nation's development

How far Japan will be able to maintain this policy successfully in competition with the usually superior manufactures of Western

| ASIA | EXPORTS | | |
|--------------------------|-------------|-------------|-------------|
| | 1905 | 1910 | 1915 |
| | Yen | Yen | Yen |
| China..... | ..... | ..... | 141,123,000 |
| Kwantung..... | 98,681,998 | 90,037,354 | 22,201,000 |
| Korea..... | 26,618,870 | 17,450,330 | 49,492,000 |
| Hongkong..... | 20,215,081 | 23,459,911 | 27,401,000 |
| British India..... | 7,997,594 | 18,712,918 | 42,202,000 |
| Straits Settlements..... | 4,424,068 | 6,549,661 | 12,640,000 |
| Dutch India..... | 1,233,011 | 3,133,598 | 8,438,000 |
| French India..... | 406,933 | 341,083 | 637,000 |
| Russian Asia..... | 1,709,787 | 2,503,476 | 78,299,000 |
| Philippines..... | 1,363,673 | 4,410,505 | 7,771,000 |
| Siam..... | 103,342 | 533,098 | 778,000 |
| <i>Total</i> | 162,754,357 | 167,131,934 | 390,982,000 |
| EUROPE | | | |
| England..... | 13,039,401 | 25,781,364 | 68,494,000 |
| France..... | 27,227,473 | 44,925,229 | 42,293,000 |
| Germany..... | 4,360,402 | 11,167,773 | ..... |
| Belgium..... | 665,520 | 3,464,839 | ..... |
| Italy..... | 8,095,467 | 16,834,878 | 3,012,000 |
| Switzerland..... | 11,554 | 1,943,040 | 44,000 |
| Austria-Hungary..... | 414,106 | 1,159,587 | ..... |
| Holland..... | 161,834 | 725,952 | 42,000 |
| Sweden..... | 193 | 256,115 | 139,000 |
| Norway..... | 11,689 | 5,107 | ..... |
| Russia..... | 10,584 | 1,811,283 | 11,239,000 |
| Spain..... | 77,742 | 269,911 | 350,000 |
| Denmark..... | 70,045 | 138,021 | 453,000 |
| Turkey..... | 50,516 | 81,166 | 2,000 |
| Portugal..... | 604 | 5,640 | 13,000 |
| <i>Total</i> | 54,197,130 | 108,569,905 | 126,081,000 |
| AMERICA | | | |
| United States..... | 94,009,072 | 143,702,249 | 204,142,000 |
| Canada..... | 3,240,036 | 4,261,792 | 7,024,000 |
| Mexico..... | 60,935 | 318,350 | 13,000 |
| Peru..... | 10,407 | 200,378 | 135,000 |
| Chile..... | ..... | 71,411 | 170,000 |
| Argentine..... | ..... | ..... | 1,129,000 |
| <i>Total</i> | 97,320,450 | 148,554,180 | 212,613,000 |
| Australasia..... | 4,072,936 | 6,552,457 | 18,098,000 |
| Hawaii..... | 1,876,454 | 3,964,066 | 6,095,000 |
| Egypt..... | 283,801 | 806,821 | 985,000 |
| South Africa..... | ..... | ..... | 1,000,000 |
| <i>Total</i> | 6,233,191 | 11,323,344 | 26,178,000 |
| Other Countries..... | 10,281,482 | 2,728,837 | 722,000 |
| Ambiguous..... | ..... | 972,333 | 381,000 |
| <i>Grand Total</i> | 330,786,610 | 439,280,533 | 756,957,000 |

countries is an interesting question. Complaints from importers of Japanese manufactures are numerous in respect to lack of uniformity in quality and regularity in output, due chiefly to the fact that so often large orders are sublet to various smaller concerns, each making the goods according to his own lights. Doubtless with closer official super-

vision and increase of efficiency, Japanese goods will eventually attain a reputation for standard quality and hold their own in the trade markets of the world.

Notwithstanding the remarkable extension of trade experienced by Japan in recent years the value of her trade per head of the population is still found to be only something over 30

yen, as compared with 260 yen per head in Great Britain, a contrast which is very striking, especially as the per capita ratio of Japanese trade is even lower than that of Spain and Italy. Moreover, in such articles as first-class woollens, iron, machinery, dyes, and paper Japan will be more or less dependent on foreign countries for some time to come, though in chemical dyes and cheap paper she has made rapid development since the war. But it may safely be said that in all the highest classes of goods, except silks, Japan still depends on other countries, more especially on England. In 1913 Japan imported iron, machinery, woollen stuffs, cotton fabrics, and paper to the value of 29,000,000 yen; but in 1916, notwithstanding a decline in imports on account of the war, she yet managed to import these goods to the value of about 110,000,000 yen, and in 1917 to the value of 150,000,000 yen.

PRINCIPAL EXPORTS AND IMPORTS

JAPAN's principal exports at present are raw silk, cotton yarns and fabrics, silk goods, copper, coal, sugar, matches, knitted goods, waste silk, tea, hemp plait, timber, fish (both salt and dried), earthenwares, straw plait, chip plait, hats, handkerchiefs, rice, figured matting, camphor, menthol crystal, peppermint oil, fish oil, whale oil, canned and bottled foods, glass and glassware, buttons, paper, towels, machinery and accessories, toys, pulse, brushes, fruits, saké, edible seaweed, sulphur, bamboo ware, umbrellas, isinglass, ships, boats, patent medicines, soaps, vegetables, etc., of which silk, copper, camphor, braids, and fish oil go chiefly to America and Europe, while cottons, knitted goods, and marine products as well as sugar go for the most part to Oriental countries. Porcelain and timber go to America, Australia, and Mexico.

The principal imports are raw cotton, ginned cotton, rice, fertilizers, sugar, machinery, wool, crude sulphuric acid, ammonia, woollen goods, wheat, petroleum, woollen yarns, finer cottons, mineral phosphates, flax, hemp, vegetable fibers, paper, pulp, aniline dyes, railroad equipment, coal, ships, boats, India rubber, gutta percha, zinc, artificial indigo, bicycles and accessories, iron goods, drugs and chemicals. Of these, most of the iron, machinery, and woollens come from Great Britain; raw cotton from the United States, India, Egypt, and China; wool from Australia and Germany; sugar and cereals from India and Oriental lands; paper from England, Germany, and Austria; petroleum from America; and fertilizers from South America. The table on the next page shows the principal items of Japanese exports and imports during intervals of five years for the fifteen years up to the European war.

| ASIA | IMPORTS | | |
|--------------------------|-------------|-------------|-------------|
| | 1905 | 1910 | 1915 |
| | Yen | Yen | Yen |
| China..... | 52,618,408 | 68,569,541 | 85,848,000 |
| Kwantung..... | | 9,740,160 | 27,819,000 |
| Korea..... | 6,150,541 | 8,591,835 | ..... |
| Hongkong..... | 1,128,597 | 674,651 | 1,594,000 |
| British India..... | 90,226,830 | 106,361,497 | 147,585,000 |
| Straits Settlements..... | 3,397,886 | 4,615,981 | 5,356,000 |
| Dutch India..... | 14,830,004 | 18,879,501 | 16,312,000 |
| French India..... | 10,147,957 | 4,438,133 | 3,687,000 |
| Russian Asia..... | 2,276,564 | 762,610 | 3,564,000 |
| Philippines..... | 1,367,612 | 788,206 | 7,309,000 |
| Siam..... | 4,586,555 | 2,635,575 | 2,808,000 |
| <i>Total</i> | 186,730,954 | 226,057,690 | 301,882,000 |
| EUROPE | | | |
| England..... | 115,380,101 | 94,700,911 | 58,084,000 |
| France..... | 5,129,208 | 5,404,849 | 3,891,000 |
| Germany..... | 42,579,960 | 43,946,478 | 5,919,000 |
| Belgium..... | 11,002,185 | 9,409,075 | 372,000 |
| Italy..... | 502,091 | 591,502 | 299,000 |
| Switzerland..... | 2,974,305 | 1,694,199 | 1,513,000 |
| Austria-Hungary..... | 2,256,196 | 2,782,032 | 70,000 |
| Holland..... | 873,528 | 919,207 | 278,000 |
| Sweden..... | 1,002,574 | 3,059,596 | 6,299,000 |
| Norway..... | 1,268,615 | 371,350 | 1,225,000 |
| Russia..... | 29,049 | 208,015 | 607,000 |
| Spain..... | 249,083 | 536,490 | 194,000 |
| Denmark..... | 24,195 | 97,840 | 165,000 |
| Turkey..... | 36,964 | 20,417 | 94,000 |
| Portugal..... | 15,720 | 21,371 | 5,000 |
| <i>Total</i> | 183,323,774 | 163,763,332 | 79,015,000 |
| AMERICA | | | |
| United States..... | 104,286,528 | 54,699,166 | 102,534,000 |
| Canada..... | 732,022 | 850,126 | 1,053,000 |
| Mexico..... | 166,873 | 12,775 | 7,000 |
| Peru..... | 3,608 | 456,059 | 22,000 |
| Chile..... | ..... | 1,469,517 | 2,999,000 |
| Argentina..... | ..... | ..... | ..... |
| <i>Total</i> | 105,189,031 | 57,487,643 | 106,615,000 |
| Australasia..... | 6,001,197 | 7,601,681 | 28,571,000 |
| Hawaii..... | 13,692 | 11,526 | 43,000 |
| Egypt..... | 2,999,133 | 4,192,196 | 6,136,000 |
| <i>Total</i> | 9,014,022 | 11,805,403 | 34,750,000 |
| Other Countries..... | 3,336,867 | 4,689,800 | 3,657,000 |
| Ambiguous..... | 493,369 | 429,940 | 6,344,000 |
| <i>Grand Total</i> | 488,088,017 | 464,233,808 | 532,263,000 |

| YEAR | RAW MATERIALS | | MANUFACTURES USED AS RAW MATERIALS | | FINISHED ARTICLES | |
|------|---------------|-------------|---------------------------------------|-------------|-------------------|-------------|
| | Exports | Imports | Exports | Imports | Exports | Imports |
| | Yen | Yen | Yen | Yen | Yen | Yen |
| 1877 | 1,794,246 | 1,205,507 | 10,923,091 | 6,659,352 | 749,430 | 14,833,175 |
| 1893 | 9,579,377 | 18,817,674 | 36,616,197 | 17,725,982 | 22,260,622 | 29,550,820 |
| 1903 | 30,399,596 | 89,303,711 | 138,948,851 | 42,918,267 | 79,207,104 | 78,286,198 |
| 1913 | 41,710,399 | 292,792,054 | 335,132,884 | 141,812,555 | 183,748,683 | 191,608,329 |
| 1917 | 65,000,000 | 435,000,000 | £89,000,000 | 250,000,000 | 473,000,000 | 83,000,000 |

JAPAN'S TRADE POLICY

It is not too much to say that the entire population of Japan is now, and will be for many years to come, absorbed in the ambition to become supreme in the commercial as well as the political world of East Asia. With their enormous expansion of industry and shipping as a result of the war, and their close and accurate investigation of trade conditions everywhere, the commerce of the country may be expected to find permanent extension in fields formerly held by Western countries, more especially in India, South America, South Africa, the South Sea Islands, Australia, and China; while the nation's high tariff protects its nascent industries from competition through foreign imports at home. But, as has already been suggested, Japan has still to show that she can hold her own against the superior manufactures of Great Britain and the United States on even

terms. Owing to her cheap labour and better knowledge of conditions, Japan has already practically driven her American rivals from the cotton and tobacco markets of China, and is running Great Britain a close second. She is making a big bid for similar achievements in India, the chances there being so far problematical. What Japan has to remember is that her phenomenal expansion thus far has been in no small measure due to the satisfactory relations she has been able to maintain with the nations she now hopes to rival and outdistance in the great trade fields of East Asia.

The question of direct trade is one of increasing interest to foreigners and Japanese alike. The foundations of Japan's foreign trade were laid by the merchants of Europe and America who established branches and agencies in the open ports at a time when Japan had practically no commercial inter-

course with the outside world. For the first years of Japan's foreign trade these intermediaries were essential to the proper facilitation of trade, but with the increasing expansion of commerce in recent years efforts are being made to get rid of the foreign middleman and bring the trade of the Empire as far as possible into native hands. The policy is regarded by foreigners as a mistaken one, since foreign merchants resident in Japan know the needs of the foreign market best, and are more trusted by Western buyers in promoting transactions with Japan. That the policy of eliminating the foreign middleman has not yet been wholly successful may be seen from the large number of foreign firms still prospering in the great commercial centres of the Empire, as well as from the fact that about 60 per cent of the country's foreign export trade is still transacted by foreign middlemen, the ratio according to nationality being about 40 per cent British and American (17 per cent of which was in German hands before the war), China 16 per cent, and other nations the rest. In imports, the Japanese control about 58 per cent, British and Americans 30 per cent (of which 10 per cent was in German hands before the war), and China 7 per cent.

It has already been shown that by the introduction of a high protective tariff and the promotion of rapid development in industrial output, Japan has succeeded in reducing her imports and bringing about a favourable



MAIN STREET, YOKOHAMA, IN THE FOREIGN BUSINESS SECTION

COMPARATIVE VALUE OF CLASSES OF COMMODITIES EXPORTED AND IMPORTED

| ARTICLES | 1905 | 1910 | 1915 |
|--|-------------|-------------|---------------|
| Exports | Yen | Yen | Yen |
| Grains, flours, starches, and seeds..... | 4,168,603 | 7,580,384 | 24,466,898 |
| Tea..... | 10,584,322 | 14,542,334 | 15,402,023 |
| Marine products..... | 8,044,480 | 9,107,390 | 11,934,355 |
| Sugar, confections, sweetmeats, etc..... | 4,440,863 | 6,259,807 | 12,092,461 |
| Beverages and comestibles..... | 12,460,633 | 12,488,799 | 14,308,542 |
| Tobacco..... | 3,523,084 | 1,256,659 | 372,293 |
| Animal products (skins, horns, bones)..... | 2,209,089 | 3,811,268 | 6,021,548 |
| Drugs, chemicals, medicines, pigments..... | 18,058,186 | 19,589,191 | 32,825,053 |
| Oils, fats, waxes, etc..... | 2,661,596 | 6,060,375 | 10,146,513 |
| Tissues, yarns, and materials thereof: | | | |
| Silk..... | 113,713,391 | 179,387,322 | 207,414,456 |
| Cotton..... | 47,818,865 | 68,927,518 | 108,968,247 |
| All others..... | 2,142,893 | 6,652,169 | 29,277,630 |
| Clothing and accessories..... | 5,657,536 | 14,009,389 | 36,532,349 |
| Paper and manufactures thereof..... | 4,043,469 | 5,025,218 | 6,351,436 |
| Minerals and manufactures thereof..... | 14,816,190 | 18,004,547 | 22,191,233 |
| Ores and metals..... | 17,181,108 | 24,617,004 | 64,719,377 |
| Metal manufactures..... | 2,245,661 | 3,530,686 | 7,760,936 |
| Earthenware, porcelain, glass, etc..... | 7,563,535 | 7,648,737 | 12,857,089 |
| Machinery..... | 3,097,183 | 3,357,054 | 10,931,193 |
| Miscellaneous..... | 37,102,923 | 46,564,145 | 74,634,255 |
| <i>Total</i> | 321,533,610 | 458,428,996 | 708,306,897 |
| Imports | | | |
| Grains, flours, starches, and seeds..... | 66,573,005 | 27,172,655 | 24,802,559 |
| Sugars, confections, and sweetmeats..... | 14,018,277 | 13,293,191 | 14,912,886 |
| Beverages and comestibles..... | 16,489,805 | 6,772,327 | 5,204,255 |
| Animal products (skins, bones, etc.)..... | 18,661,482 | 7,432,712 | 12,622,144 |
| Drugs, chemicals, and medicines..... | 15,404,274 | 26,012,802 | 30,596,116 |
| Dyes, pigments, and paints..... | 8,254,532 | 10,082,802 | 7,373,468 |
| Oils and waxes..... | 15,830,782 | 21,359,661 | 17,276,236 |
| Tissues, yarns, and materials thereof: | | | |
| Cotton..... | 131,386,909 | 173,474,600 | 222,369,433 |
| Wool..... | 35,249,740 | 31,969,967 | 34,764,123 |
| Silk..... | 2,237,290 | 2,202,175 | 4,476,245 |
| Flax, hemp, etc..... | 6,869,698 | 4,582,709 | 9,148,398 |
| All others..... | 6,620,995 | 4,503,016 | 2,530,888 |
| Clothing and accessories..... | 1,856,303 | 1,386,757 | 368,285 |
| Paper and stationery..... | 7,509,556 | 12,042,291 | 9,786,359 |
| Minerals and manufactures thereof..... | 9,736,767 | 8,129,243 | 9,321,564 |
| Ores and metals: | | | |
| Iron..... | 36,688,029 | 33,644,467 | 36,232,296 |
| All other metals..... | 15,090,221 | 9,609,041 | 22,437,421 |
| Metal manufactures..... | 10,390,769 | 11,102,417 | 4,118,158 |
| Earthenware, porcelain, glass, etc..... | 2,302,298 | 3,173,941 | 1,252,006 |
| Machines and machinery..... | 38,160,773 | 23,611,774 | 14,707,887 |
| Miscellaneous..... | 29,206,512 | 32,675,260 | 48,148,111 |
| <i>Total</i> | 488,538,017 | 464,233,808 | 532,448,838 |
| <i>Total of Exports and Imports</i> | 810,071,627 | 922,662,804 | 1,240,755,735 |

| YEARS | TOTAL IMPORTS Yen | GOODS DUTIABLE Yen | CUSTOMS REVENUE Yen | AVERAGE PERCENTAGE |
|-------|----------------------|-----------------------|------------------------|-----------------------|
| 1912 | 618,992,000 | 312,689,000 | 58,242,000 | 18.63 |
| 1913 | 729,431,000 | 368,256,000 | 73,580,000 | 19.78 |
| 1914 | 595,735,000 | 255,667,000 | 50,512,000 | 19.76 |
| 1915 | 532,449,000 | 174,783,000 | 30,195,000 | 17.28 |
| 1916 | 756,427,000 | 294,876,000 | 33,832,000 | 11.47 |

balance of trade. Her ability to maintain this position depends somewhat on whether she can retain command of the Oriental markets in the necessities of life. In her efforts in this direction she can never afford to be defiant toward her competitors, with whom in any tariff war she must inevitably suffer.

Now that Japan has chosen to become a mercantile and commercial nation her prosperity must largely depend on foreign trade. Apart from silk, tea, copper, and coal she has no staple commodities for which the Western world might have to depend on her. She is always, therefore, more beholden to her friends than they to her. Her home markets can not be compared for a moment to those of the countries she most desires to rival in industry and trade. In both England and the United States the consuming power of the individual is ten times what it is in Japan, to say nothing of his greater purchasing power. Ignoring these facts Japan has, nevertheless, gone on increasing her tariff until in some items it is now almost prohibitive. Not over 5 per cent in 1896, it jumped to 8½ in 1900; and now for some years it has been steadily over 15 per cent, and recently above 17 per cent. The table at the foot of this page will indicate the upward movement of Japan's tariff.

COMMERCIAL INSTITUTIONS

In old Japan commercial institutions pertained to the local *daimies*, but after the opening of the country to foreign trade chambers of commerce began to appear, of which there are now sixty in the Empire, with over 1,800 members and spending about 350,000 yen a year. The chambers are conducted entirely on European lines and are self-governing bodies, whose chief functions are the investigation of industrial and commercial affairs, arbitration, commercial consultative bodies for the Government and the carrying on of commercial propaganda. Japan has also numerous Trade Guilds which exercise an important influence on commerce.

These guilds represent the various industries and manufactures, and their main purpose is to promote the benefit of the members generally, the rectifying of bad business customs, as well as improvement of production and the opening of new markets. The guilds act in conjunction with one another toward the attainment of common ends and the exchange of mutual information helpful to trade and industry. The various local guilds are united under one central authority whose officers are appointed by the Government. The total number of these guilds

is now over 1,000, with some 46 allied associations, having a membership of 1,100,000 and an annual expenditure of some 3,000,000 yen.

The total capital now represented by the industrial guilds of Japan is estimated at about 720,000,000 yen. The Central Association of Trade Guilds, as well as the Government, is devoting careful attention to the regulation of quantity and quality of output in the more important lines of industry, especially as to goods intended for export, all manufactures being subject to inspection. By this careful conditioning of exports it is hoped to prevent the sending abroad of inferior or unsatisfactory goods such as might prejudice the reputation of Japanese manufactures.

JAPAN'S BUTTON TRADE

By MR. EMILE OTT, of Messrs. Israel & Oppenheimer, Ltd., Kobe

THE manufacture of buttons from sea shells is, in Japan, a comparatively young industry, and it is interesting to trace the development of the button trade from the first small and primitive factory to the present up-to-date installations and enormous export capacity.

It is a difficult matter to decide who was the first button maker as there are several men, each of whom claims to be the founder of one of Japan's most important modern industries. However, there is no doubt but that a Japanese can claim this distinction.

In 1871, only forty-seven years ago, Mr. Uwo, who still lives in Osaka, obtained a foreign made button from a foreign merchant, and immediately began to manufacture buttons, though on a very small scale. He made use of the Shinju shell, which he obtained from the Inland Sea of Japan, the same shell which is being used to-day. Mr. Uwo's only tools to cut the shell were scissors, and the holes were bored through the unfinished buttons, one by one, with a primitive borer, therefore one can easily imagine how small his output of poor quality buttons was. His first essay at button-making was certainly not a very profitable proposition but it did not discourage him, though he soon realised that without better tools it could not possibly



LEADING FOREIGN MERCHANTS OF YOKOHAMA

(Upper Row, Left to Right) H. M. ARNOULD, of Varnum Arnould & Co.—E. C. DAVIS, Partner of Davis, Summers & Co.—J. ALSTON, Manager for Japan of the Chartered Bank of India, Australia, and China—F. W. R. WARD, Managing Partner, Cooper & Co.—S. ISAACS, of S. Isaacs & Co. (Middle Row) J. D. LONGMIRE, Manager, International Banking Corporation—R. T. WRIGHT, Manager for Japan, Hongkong & Shanghai Bank, Yokohama—THE HON. A. M. CHALMERS, British Consul-General at Yokohama—F. H. BUGBIRD, Representative for Japan, Jardine, Matheson & Co., Ltd.—A. H. COLE WATSON, Yokohama Representative of Findlay, Richardson & Co., Ltd. (Lower Row) R. E. KOHZEVAR, Yokohama Agent for Peninsular & Oriental S. N. Co. — O. M. POOLE, Manager, Dodwell & Co., Ltd. — A. P. SCOTT, Managing Director, The Rising Sun Petroleum Co., Ltd., and Author of Article on "Petroleum" in this Volume — H. A. ENSWORTH, General Manager for Japan of Standard Oil Co. of New York, and President of the American Association of Japan — H. S. HUME, Managing Director, Samuel Samuel & Co., Ltd. — R. M. VARNUM, of Arnould Varnum & Co.

turn out a success. He made experiments with a view to devising a machine, and succeeded in improving to a considerable extent, at least, on the scissors, and produced a certain quality of very cheap Shinju buttons, quite good enough for home use.

Mr. Uwo's activity attracted the attention of other persons to the industry, and the Okayama and Osaka penitentiaries soon began turning out similar buttons. A few years later about a dozen small factories were at work.

In 1880 the first South Sea Island and Indian shell was imported to Japan, and the makers of the cheap Shinju buttons immediately started to copy the foreign good quality buttons. The bleaching, however, was very bad, as none of the manufacturers seemed able to get hold of the chemical process formulas which were in use in Europe. Some nine years later, in 1889, a German by the name of Winkler established a button factory in Kobé, starting on quite an extensive scale, with two hundred up-to-date machines, forty-eight of which he imported. He began at once to use other shells from Japan's Inland Sea, such as Yanko and Awabi, beside those of Macassar and South Sea Island Takase. Winkler brought out experts from Germany thoroughly acquainted with the manufacture of buttons, and he thus established himself from the beginning as the leading manufacturer, keeping, moreover, all his machines and manufacturing processes as secret as possible. After a few years he began the importation of the necessary bleaching material and started his own bleaching department, along the same lines as the Austrian and German manufacturers in Europe. In 1895 a Japanese named Masagaki experimented successfully in the bleaching of buttons with chemicals, and much of the tremendous development of the export business in the following years is due to the early adoption of this bleaching process and the consequent exportation of the completely finished buttons.

FIRST EXPORT

ACCORDING to statistics of the Department of Finance, early in 1872 the first buttons were exported from Kobé to Austria, amounting to 3,880 pieces of buttons of a value of Yen 40.00. It is very doubtful, however, whether these buttons were made in Japan, as Austria then produced a very good button and could not possibly use Japan's first trial in cheap Shinju. In fact, Japan's statistics do not mention buttons as an export during the seventeen years following 1872. During the first years Winkler exported the unfinished buttons (simple holed button forms, unbleached) to Germany, where they were

bleached and finished. There is no further record though it is possible that Japan-made buttons may have been exported together with manufactured articles such as underwear, clothing, etc. The first export, according to official statistics, was made in 1893, of a total value of Yen 174,000.

The war has naturally had a great influence on Japan's button trade, and the following facts will be of interest. Despite the fact that labour in Japan has gone up since the beginning of the war from forty to fifty per cent; that prices of bleaching materials have doubled, and that foreign raw material has raised from twenty to forty per cent owing to the scarcity of, and increase in, shipping space, the prices of buttons have remained not only the same, but dropped in certain instances twenty per cent. This is principally due to the fact that Japan lost in Germany one of its largest buyers, and, further, to the import restrictions of England in 1916 (fifty per cent of previous years' import only). On the other hand, however, the exports to the United States nearly doubled. In America, the buttons known as the Mississippi fresh water buttons are used in tremendous quantities, but the cost of labour in the United States has risen during the war to such an extent that Japan is able to sell buttons at favourable prices, despite the high customs tariff of the United States. The American consumer did not want, however, to part with his white fresh water button, so large quantities of Taimin Dobu, a white shell of similar appearance to the Mississippi shell, are imported into Japan especially for the American and Canadian markets. This tremendous export of Dobu buttons in Taimin and Japanese Dobu shell did not influence the other quality buttons to the betterment of the trade, and prices are still low. They will presumably rise as soon as the war is over.

WORK OF THE EXPORTER

TO-DAY Japan with her modern machinery and perfect bleaching and shaping plants can produce buttons which compete with the foreign product, and the labour, which in comparison with other button-producing countries is still cheap, enables her to lead all foreign producers. France, of course, manufactures a very good, or even better, quality button, but the prices are proportionately higher. The fancy shaped buttons are not, of course, to be forgotten, and the dyeing of buttons, which has improved of late, enables Japan to compete also with the French manufacturers in the fancy and coloured lines. There are actually only a limited number of exporters who are operating successfully in the button trade, for

only years of experience in the different markets, a perfect knowledge of the raw material and the manufacturing process, will enable an exporter to handle buttons successfully and satisfy customers abroad. Winkler was the only man who exported his own buttons, whereas to-day all manufacturers deal through exporters, though it is easily understood that most of the leading exporters are financially interested on the manufacturing side. The very greatest care has to be exercised because so many points require consideration. The different qualities of shell of almost identical appearance but difference in price, the various thicknesses of the shell and consequently varying thickness of the buttons, the size of the holing, which differs according to the market, the thorough bleaching and polishing, and the various different grades (first, second, third, and fourth quality), all make it essential that the up-to-date exporter shall keep an experienced staff of inspectors with a thorough knowledge of the raw materials and the requirements of the different markets. The careful inspection of every single button is the only way to satisfy the foreign consumer.

Some of the leading exporters are actually importing their own raw and bleaching materials, beside giving to the manufacturers financial assistance. Some exporters, with world-wide connections, control the whole output capacity of several factories and their export to various countries enables them to dispose of every grade the factories produce, while it is of great importance that the makers be induced to turn out new shapes and designs. The great improvements in the fancy buttons within the last few years is mostly due to the assiduous work of some of the leading exporters and foreign experts in buttons.

The Japanese button manufacturers are preparing for foreign competition after the war, and are confident, not only of being able to hold their position, but of being able to improve the same, and their expectations appear in many ways to be justified.

TOKYO BUSINESS HOUSES

OKURA AND COMPANY

THE firm of Okura and Company was founded by the present Baron Okura, a man of fine personality, unusual genius for organisation, unflinching faith in industry and of resistless enterprise. Baron Okura stands a peer among the great merchant princes of Japan, and his concern is one of the leading import and export houses of the Empire. Commencing business in 1869 to supply equipment for Japan's nascent army, the



TOKYO PREMISES OF OKURA & COMPANY

firm made large profits on Government contracts, and has ever since enjoyed the confidence and patronage of the Imperial authorities. Messrs. Okura and Company are doing business on a capital of 10,000,000 yen, and are engaged chiefly in the importing of mining and other engineering machinery, as well as in the export of leather goods, army cloths, arms, ammunition, explosives, munitions, pig iron, smokeless coal, engineering equipment, and manufacturing machinery. The company has branch offices in Shanghai, Hankow, Tientsin, Darien, Mukden, Tsingtau, Tsainanfu and other places in China, with offices in Sydney, New York, and London, as well, the Okura house being the first Japanese company to open an office in London. The company is especially popular in China, where Baron Okura has himself gone to interview Government officials and close contracts, frequently accommodating China with private loans. The head and founder of Okura and Company takes a keen and liberal interest in national affairs. He

established the Okura Commercial College in Tokyo for the educating of men of business so much in demand everywhere in Japan, and in 1898 he endowed the institution with half a million yen. Baron Okura has established similar schools at Osaka and in Seoul. Recently he presented the nation with a valuable museum. Beside the head of the firm, Baron Okura, there are Mr. C. Kadono, Mr. Kumema Okura, Mr. Hatsumi Okura, Mr. K. S. Okura, and Mr. Yamada, as Directors.

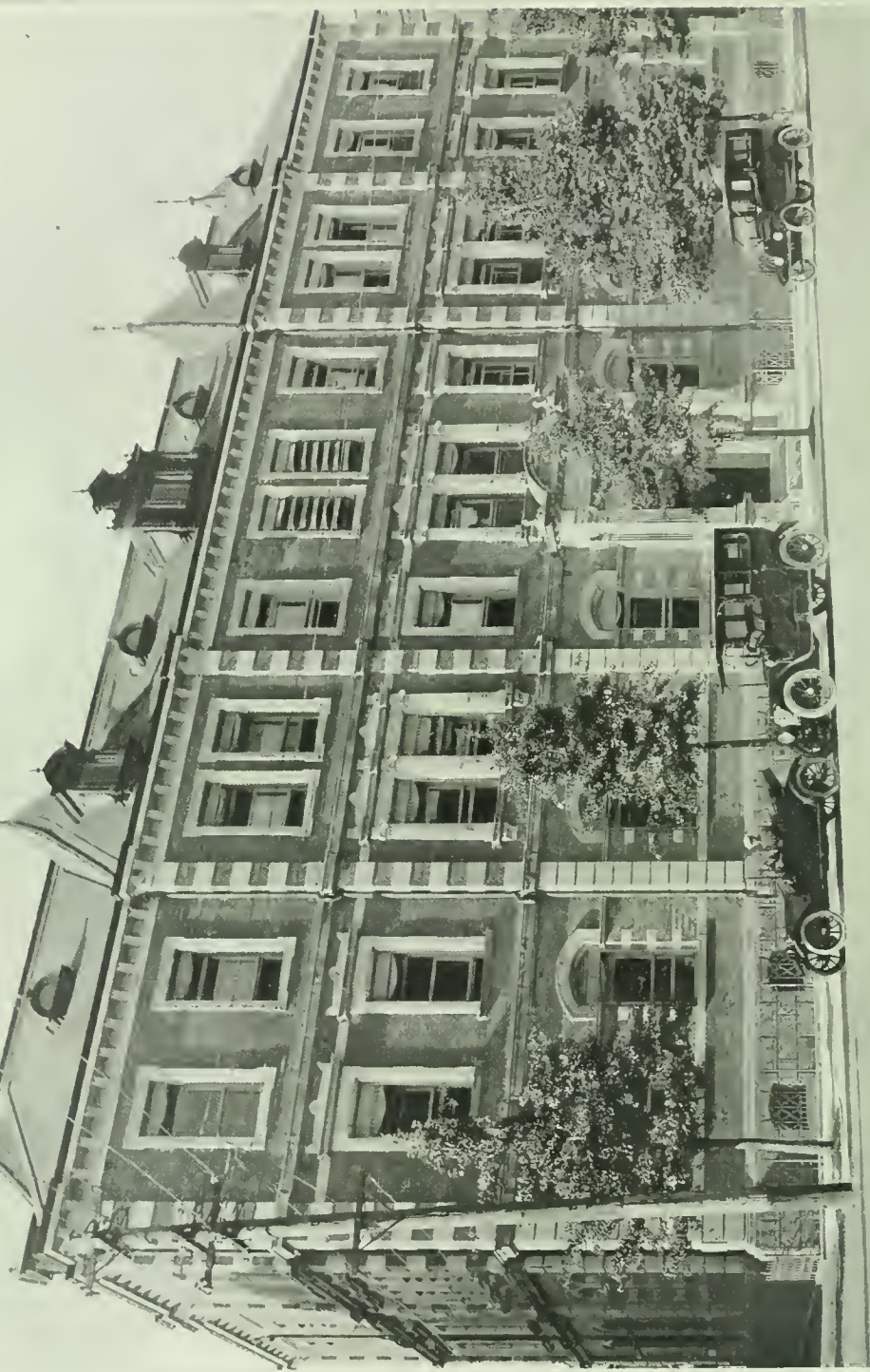
TAKATA AND COMPANY

Mr. Shinzo Takata, who established the business which bears his name, was one of the very earliest importers and exporters in Japan, having entered upon trade with foreign countries as far back as 1869. After many difficulties which attended the effort to do foreign business in those early days, Mr. Takata built up a world-wide connection, and the firm to-day is undoubtedly among the most important concerns in Japan.

Messrs. Takata & Co. are general merchants, mine owners, and industrial manufacturers and Government contractors, their interests being widely varied. They direct and manage the Takata Ship Paint Factory at Ohsakimura, Tokyo-fu; the Yanagishima Iron Works, Tokyo; the Ohdera Zinc Refining Works at Fukushima-ken, and are interested in the following mining properties: Takata Mine (zinc and lead), Miyagi-ken; Hiroo Zinc Mine, Hokkaido; Takakoshi Copper Mine, Tokushima-ken; Hiyoshi Copper Mine, Okayama-ken, and the Katsuura Mine, Hyogo-ken. In the Sino-Japanese and Russo-Japanese Wars Mr. Takata rendered great service to the Imperial Government and he was awarded the third Order of the Rising Sun. In 1909, owing to the great expansion which had taken place, the business was transformed into a semi-partnership, the principals of which are Mr. Shinzo Takata and his two sons, Messrs. Kamakichi and Nobujiro Takata. The head office of Messrs. Takata & Co. is at Eiraku-



PALATIAL TOKYO OFFICES OF TAKATA & CO.



THE HEAD OFFICES OF SALE & FRAZAR, LIMITED, TOKYO

cho, Nichome, Kojimachi-ku, Tokyo, and there are branches at Osaka, London, New York, Shanghai, Hankow, Dalny, Keijo, Taihoku, Yokosuka, Yokohama, Kobe, Maizuru, Kure, Moji, and Sasebo.

SALE AND FRAZAR, LIMITED

AMONG the names of the pioneers of foreign trade in the Orient, none are better known than those of Sale and Frazar, and in Japan, the names in combination in the big enterprise known as Sale & Frazar, Limited, stand for all that is enterprising, substantial, and stable in commerce. The origin of the concern goes back into the remote stages of trade development in China and Japan, and in the early and romantic history of the pioneer days the two names of George Frazar and George Sale frequently recur, as do those of their respective descendants. The late Mr. George Frazar, who founded the firm of Frazar and Company, started in business in Canton as far back as 1834. He was captain of one of the famous clippers which used to carry raw silk and tea from China to Boston. Mr. Frazar was among the earliest settlers in Hongkong when that port was ceded to the British and opened for foreign trade in the forties. His son, Everett Frazar, proceeded to Shanghai in 1856 and there established a branch of Frazar and Company, engaging in a general import and export business, which is still actively operated under the proprietorship of Mr. MacMichael, who purchased the firm's interest in 1890. Everett Frazar made his first visit to Japan with Commodore Perry's second expedition in 1858, but as at that time the future of foreign trade with Japan was a closed book, owing to the extremely hostile attitude of the Japanese, Mr. Frazar considered the prospect too uninviting, and returned to Shanghai. In 1878 his partner, Mr. John Lindsley, started the firm in business in Yokohama, and remained with it until his retirement in 1901. Mr. Everett Frazar died in the same year, and his son, Mr. E. W. Frazar, the present Managing Director of Sale & Frazar, Ltd., succeeded his father in the business, and in 1902 bought out Mr. Lindsley. In the same year the combination of Messrs. Frazar and Company and Messrs. Sale and Company took place, Mr. C. V. Sale becoming a partner of Frazar and Company and Mr. Frazar a director of Sale and Company.

Meanwhile the Sale family had been establishing their great interests in Japan. The pioneer was the late Mr. George Sale who came to Japan from England in 1879, and opened up business. He was succeeded by his son, Mr. Charles V. Sale, and the business was developed to a large extent, ultimately being incorporated under the laws of Japan in 1895 as Sale and Company. In 1907 Mr.



WOOD CARVERS AT WORK

Sale retired and took over the London branch of the firm. This branch was subsequently made a separate concern, and is controlled by Mr. Charles V. Sale. His brother, Mr. Fred G. Sale, continued with the business in Japan until 1913, when he retired to England.

The linking of the interests of these two old firms, which took place in 1902, was entirely successful, and two years later it was decided to make the amalgamation complete, the two concerns being merged in the present corporation of Sale & Frazar, Ltd. During the many years of the activity of the old partnerships and the present company almost every branch of business has been carried on in import and export, shipping and finance. Sale & Frazar, Ltd., have the distinction of having brought the first electric dynamo to Japan, and they installed the first electric plant in the Emperor's Palace. They also put in the first plant for the Tokyo Electric Light Company. They introduced the first phonograph and the first American locomotive. They were pioneers of American cotton and flour, and also inaugurated the Canadian Pacific Railway Company's ocean service, beginning with sailing ships, next with chartered steamers, and finally the magnificent "Empress" liners.

From this history it will be seen what an important part the company and its predecessors have played in the development of foreign interests in Japan. The foundations laid by the founders of the great concern have been steadily built upon and to-day the business must be numbered among the very first in the Far East. It is conducted with vigour and along the soundest lines, making for the

maintenance of British and American commercial prestige in Japan. The business is organised into eight departments, each under expert direction, and well staffed with foreign and Japanese servants fitted by experience to handle the intricate and multitudinous undertakings which the company always has in hand. To attempt to describe the work of each department is not within the scope of this brief description of Sale & Frazar, Ltd. There is hardly a branch of trade with Japan, no matter over what wide range of activity we glance, that is not dealt with. In imports such agencies as those of Armour & Co., of Chicago, "Carnation Milk," Morgan Crucible Co., and Ford cars may be mentioned. Imports include rubber, metals, chemicals, fertilizers, textiles, dyes, paper pulp and scores of other lines. Exports embrace practically every exportable line produced in Japan. The company is agent for half a dozen insurance companies, and several of the big shipping organisations, and it is hard to say where its ramifications end, the business extending through several branches in Japan and to such important commercial centres as London, New York, Sydney, Shanghai, Peking, Tientsin, Dairen, and Thursday Island.

Sale & Frazar, Ltd., is capitalized at Yen 400,000.00 fully paid up. The legal reserve is Yen 100,000.00. The Board of Directors consists of Messrs. E. W. Frazar (Managing Director), V. R. Bowden, F. S. Booth, H. Carew, E. J. Libeaud, J. N. Strong, A. L. J. Dewette, and C. E. Kirby (Auditor). The head office is at No. 1 Yaesu-cho, Ichome, Kojimachi-ku, Tokyo.

THE MEIJI TRADING COMPANY, LIMITED

THE officers of this company are Mr. S. H. Matsubara, President; Mr. K. Ishikawa, Mr. Tad. Ayai, and Mr. S. Soyejima, Managing Directors; Mr. T. Furuya, Mr. S. Nishimura, Mr. T. Murai, and Mr. Yakichi Murai, Directors; and Mr. G. Murai, Mr. Yaichiro Murai, and Mr. Y. Uyeno, Auditors. Mr. K. Murai, a well known millionaire and the *paterfamilias* of the Murai family, is the largest stockholder of the company. He is the President of the Murai Bank, with paid up capital of Yen 2,000,000, a reserve of over Yen 1,000,000, and deposits of about Yen 30,000,000. Mr. K. Murai, as President, and Mr. S. H. Matsubara, as Secretary, had both been Directors of the American-Japanese Tobacco Syndicate, known as Murai Bros. Company, Ltd. Mr. T. Murai had also been on the Board of Directors of the Syndicate, and at present is one of the Managing Directors of the Murai Bank. Mr. K. Ishikawa had been head of the supply department of the Syndicate which was bought up by the Government in the year 1904, when tobacco was monopo-

lised in Japan. Mr. Tad. Ayai, who had also been connected with the Syndicate as Assistant Treasurer and, at one time, Manager of the Murai Bank, and until lately one of The Meiji Trading Company's Auditors, succeeded, in December, 1916, Mr. Ter. M. Uyeno, who, on account of illness, had retired from the directorship. Mr. S. Soyejima has until recently been Assistant Manager of one of the local branches of Mitsui & Company. Mr. T. Furuya and Mr. S. Nishimura were formerly proprietors of the firm of Furuya & Nishimura, prominent tea exporters, and these two gentlemen are now in charge of the Shizuoka and New York offices. Mr. G. Murai is the General Manager of the Murai Bank, and Mr. Y. Uyeno is the Superintendent of the general business of the Murai Honten. Mr. Yakichi Murai is the President of the Murai Colliery Company, while Mr. Yaichiro Murai is the President of the Murai Warehouse Company at Kyoto.

The British references of The Meiji Trading Co., Ltd., are the Yokohama Specie Bank, London, the British American Tobacco Co.,

Ltd., Messrs. George Kent, Ltd., London, Messrs. Robert Legg, Ltd., London, and Messrs. Betts & Co., London. American references are: The American Tobacco Co., New York, Messrs. J. P. Taylor Company, Richmond, Va., the Yokohama Specie Bank, Ltd., New York, The United States Steel Products Company, New York, California Ink Company, San Francisco, and Messrs. Felton & Son, Inc., Boston.

The business was first established under the title of Ishikawa & Company, with a capital of Yen 100,000, in 1904, when the Tobacco Syndicate was liquidated. In December, 1911, Messrs. Murai joined the firm as partners, the capital was doubled, and the name was changed to Meiji Trading Company. In January, 1915, it was reorganised into a limited joint-stock company. As the sphere of work was widened from time to time, and the business rapidly expanded, the capital was again increased, in January, 1917, to Yen 1,000,000—five times the amount previously invested. Furthermore the company has the financial support of the Murai Bank, as well as that of Mr. K. Murai, personally, and is enabled to carry out almost any large undertaking. The principal lines are, in the Import Branch, leaf tobacco and tobacco manufacturing supplies, cork, pig iron, steel, tin plates, galvanized sheets and wire and other metals, hardware in general, machinery, pulp, paper, rubber (crude and manufactured) tops, textiles of all kinds, printing inks and supplies, building materials, paints, tea lead, water metres, hemp, flax, etc. The chief exports are cigarette mouthpieces, menthol crystal, peppermint oil, lily bulbs, peanuts, vegetable oil, fish oil, sulphur, hemp braids, matches, copper, cathodes and sheets, Japanese paper, rice, tea, coal, textiles of silk and cotton, etc. The Osaka branch, with the Kobé branch under the new organisation, looks after the business in the western part of Japan, under the supervision of Mr. S. Soyejima, one of the Managing Directors, assisted by Mr. T. Kaneko, who has had long experience in foreign trade. The oversea branches are as follows: Shanghai, Dairen, Tsingtao, New York (attending to all imports from and exports to America), Chicago, Montreal, and Sydney. The London branch is now being opened. The head office of the Meiji Trading Co., Ltd., is Murai Bank, Nihon-bashi-ku, Tokyo.

GOMEIKAISHA MURAI BANK

THIS bank, the partners of which are Mr. Kichibei Murai (who is popularly known, and has contributed much to the finance and economy of the country, as the pioneer of cigarette manufacture in Japan) and his relatives, was first established in Ohdemma-



PREMISES OF MEIJI TRADING CO., LTD., LOCATED IN MURAI BUILDING



SANKYO & CO., LTD.: GENERAL VIEW OF LABORATORIES, SHINAGAWA—INTERIOR OF OFFICE—PART OF RESEARCH ROOM—
SECTION OF RETAIL SHOP, TOKYO—SHOW ROOM OF SURGICAL INSTRUMENTS, TOKYO OFFICE

cho Street, Nihonbashi district, Tokyo, in January, 1904, a year after the liquidation of Murai Brothers Company owing to the Government monopolising the tobacco business in 1903. The next year, the Kyoto Branch was established in Shijo and Tomino-koji streets, Kyoto, and the Shichijo Warehouse came into the bank's possession and under its management, and then the Shichijo Branch was opened. In 1911, Kabushiki

of Japan's leading scientists and discoverers, and it occupies a foremost place in the chemical and drug industry, which has attained such importance in Japan since the outbreak of war. The origin of the company dates back to 1899, when Mr. Matasaku Shiohara, the present Managing Director, opened in Yokohama an agency for the importation and sale of the digestive preparation, "Taka-Diastase," invented by Dr. Takamine, who

gave the business further impetus, because the formation of the company attracted the support of many influential business men who realised the value to the country of the industry which Mr. Shiohara had put on such a prosperous footing. The outbreak of the great war and the cutting off of commercial relations with warring nations, drew serious attention on the part of the Japanese to the uncertain supply of drugs and chemicals, seeing that the principal articles used by physicians in Japan were mainly imported from foreign countries. Sankyo & Co., Ltd., were the first to take in the situation and begin the manufacture of drugs and chemicals, and their efforts have been rewarded with success. In a year they were able to supply the market with their products, all of the highest quality, as enumerated hereafter: Salicylic acid and salicylates, acetyl salicylic acid (Aspirin), dimethylamidoantipyrin (Pyramidon), phenacetin, lactic acid and lactates, hexamethylenetetramine (Urotropin), carbolic acid, Arsaminol (606), Salol, Theobromine sodio salicylate (Diuretin), Antifebrin, citric acid, benzoic acid, caffeine sodio benzoate, etc. Thus the company which had hitherto been chiefly engaged in the manufacture of galenic preparations and other specialties, has added to its list of manufactured articles the leading general products of world demand, as mentioned above. Sankyo & Co., besides being the largest pharmaceutical manufacturing concern in Japan, is also making investments in chemical industries in all directions, and thus endeavouring to extend its lines of business. As an example we may mention that the future of the Satowlite Company, which was recently organised at the initiative and under special auspices of Sankyo & Co. for the purpose of manufacturing non-inflammable celluloid-like articles, is attracting special interest in the scientific world. The Satowlite articles are the products resulting from the scientific investigations and researches made by the Science Institute of the North Eastern Imperial University, the Institute being kept going by funds contributed by Sankyo & Co. Several of the professors of the University, of most advanced knowledge and progressive spirit, are energetically and enthusiastically pursuing their investigations, the results of which will be forthcoming to brighten the future of Sankyo & Co. more and more.

Messrs. Sankyo & Co., Ltd., have a capital of Yen 2,300,000.00, with various reserve funds aggregating Yen 1,700,000.00. The shareholders number 167, most of whom are men of prominent position in the financial circles of Japan. The company owns seven factories, three at Shinagawa, one each at Hakozaki, Onagigawa, and Mukojima, Tokyo,



MAKING DRAWNWORK FOR EXPORT

Kaisha Murai Chokin Ginko (Murai Savings Bank, Ltd.) was established in addition. Then several branch offices were opened in Tokyo, Kyoto, and Osaka. In September, 1913, the magnificent new five-story building at the south corner of the Nihonbashi Bridge, which is situated at the very centre of the metropolis, was completed, and the bank moved there in October of that year. The rigid way of conducting business has more and more enhanced the bank's good reputation, and with the expansion of its business an increase of capital became inevitable, and it is now under contemplation to reform the organisation into a joint-stock company with a capital amounting to Yen 10,000,000.00.

SANKYO AND COMPANY, LIMITED

MESSRS. Sankyo & Co., Ltd., are manufacturers, importers of, and dealers in, chemicals, drugs, hardened oils, surgical instruments, chemical apparatus, electric insulating materials and various patented articles appertaining to the trade in which the company is active. This organisation is associated with the great name of Dr. Jokichi Takamine, one

had been a resident of New York for over thirty years, establishing there the Takamine Laboratory, Inc., where scientific research work under his direction had given to the world "Taka-Diastase," "Adrenalin," and many other preparations, manufactured by Messrs. Parke, Davis & Co. of Detroit, Michigan.

In 1912 Mr. Shiohara removed to Tokyo and established a factory at Hakozaki (the works being still in use under the direction of the present company), and begun the manufacture of pharmaceutical preparations, at the same time exerting his energies toward importing and selling various drugs and chemicals, both medicinal and industrial. All kinds of chemical and industrial machinery were also handled, Mr. Shiohara always keeping in touch with the most influential companies in his own line of business in the United States, and thus building up and extending the influence and prestige of his business. In 1913 Mr. Shiohara transformed his private interests into a limited liability company, known under the present title of Sankyo and Company, Ltd. This operation

and another at Noda-machi, Osaka. A staff of 300 experts and clerks is engaged and employment is found for over 2,000 factory hands of both sexes, actively engaged in the manufacture of chemicals and pharmaceutical preparations, hardened oils, insulating materials, surgical instruments, etc. The factory at Shinagawa, which is the subject of an illustration in this volume, is the largest of its kind in Japan. The concerns in the United States for which Sankyo & Co., Ltd., are the sole exclusive agents for Japan are: Hooker Electrochemical Co., Niagara Falls, N. Y.; Arthur Colton & Co., Detroit, Mich.; General Bakelite Co., New York City; Gall and Henning P. M. D. Manufacturing Co., Milwaukee, Wis.; Parke, Davis & Co., Detroit, Mich.; Chesebrough Manfg. Co., New York; J. P. Devine Co., Buffalo, N. Y.; Radium Chemical Co., Pittsburgh, Pa.; Spencer Lens Co., Buffalo, N. Y., and Johnson & Johnson, New Brunswick, N. J.

The officers of Messrs. Sankyo & Co., Ltd., are as follows: President and Director, Dr. Jokichi Takamine; Managing Director, Mr. Matasaku Shiohara; Directors, Messrs. Shintaro Ohashi, Chosaburo Uyemura, Sojiro

Furuta, and Genjiro Fukui; Inspectors, Messrs. Yoshibumi Murota and Konosuke Otani. The head office of the company is at Muromachi Sancho-me, Nihonbashi-ku, Tokyo.

TANAKA AND COMPANY

THE business of the Tanaka Gomei Kaisha was established about thirty years ago by Mr. Mokujiro Tanaka, who has spent a lifetime in scientific research, and who undoubtedly has contributed a great deal to Japan's store of higher technical knowledge. Messrs. Tanaka & Co. devote themselves to the importation and manufacture of all classes of surgical and scientific instruments and appliances, test tubes, microscopes, etc., as well as to the manufacture of chemicals for laboratory use and commercial purposes generally. Mr. Tanaka himself has been responsible for a large number of inventions of a scientific nature, and he is the one man in Japan who has really succeeded in a substantial way in producing glass of the chemically *hard quality* and fineness requisite for laboratory use. For this purpose the company started a factory in 1911, at Tama-

himecho, Asakusa, and produced and sold its product under the name of "Japan Jena Glass." The success thus obtained practically stopped the importation of this kind of glass from abroad, and directed attention again to the fact that Japan was rapidly becoming more and more self-reliant in the higher branches of manufactures. Mr. Tanaka soon found that his patent rights were being infringed by rival concerns, who were imitating his products but were unable to produce the right quality. Taking advantage of the Imperial Coronation ceremony in 1915, he obtained another special trade mark, "Yata Glass," and put on the market a glass of such superior quality as to challenge all rivalry. It was at once recognised that the Tanaka "Yata Glass" was better than the imported Jena glass of Germany, and the reputation of the firm was established. In the report of the Industrial Experimental Laboratory for August 20, 1916, it was shown that in the case of the German glass the degree of oxygen test was 0.13, and the heat resistance 155 to 160 degrees, whereas in the case of the Tanaka "Yata Glass" the oxygen test was 0.10, and



SAMPLE ROOM OF TANAKA GOMEI KAISHA, TOKYO

the heat resistance from 230 to 235. The gauge glasses manufactured by the Tanaka Gomei Kaisha are exclusively used in the Imperial Japanese Navy. Mr. Tanaka has also invented what is known as the "Tanaka Style Microscope." For more than twenty years he was experimenting with this instrument. Other persons also tried to turn out a satisfactory instrument, but they failed, and to Mr. Tanaka belongs the

of Tokyo. The factories are of brick, and are quite modern in design and construction. They cover a total area of about 1,000 *tsubo*, and about 500 men are employed. The annual output of the factories is valued at half a million yen, and in addition to supplying the requirements of the local markets, the firm is exporting to England, America, Russia, Australia, India and elsewhere.

K. OGURA AND COMPANY

This is one of the oldest commercial houses in Japan, having been established over one hundred and ten years, and having been controlled by five generations of the Ogura family. Messrs. K. Ogura & Company are manufacturers and importers and exporters, and their business extends throughout Japan, and also far abroad, the firm having connections with all the commercial



SAKAI-CHO-DORI, YOKOHAMA, LOOKING TOWARD THE CUSTOM HOUSE

credit of having produced the first microscope in Japan. The Tanaka microscope may be compared with Wright's microscope. A factory for its manufacture was established at Minamimachi, and to-day the firm is turning out the lenses and complete instruments in large quantities. The Tanaka Gomei Kaisha has also erected a chemical factory at Tozukamura, in the suburbs of Tokyo, where such chemicals as carbonate of potassium, chloride of potassium, molybden acid, ammonia, etc., are made in large quantities for general commercial purposes. The laboratory is also energetically engaged in the production of other chemicals, and general research and experimental work is continually being carried on. To recapitulate the activities of the Tanaka Gomei Kaisha it should be said that the head office and salesroom is at No. 1 Yaesucho, Itchome, Kojimachi-ku, Tokyo. The glass factory is at Tamashimecho, Asakusa, the metal factory at Takecho, Shitaya, and the experimental laboratory at Tozukamachi, outside

Since October, 1909, Mr. Tanaka has been publishing a monthly magazine called "Kagaku-no-Tomo" (The Chemist's Friend). He has also circulated a large catalogue of five hundred pages over the country where chemical laboratories are established, and to Saghalien, Formosa, China, and Manchuria. The high position which Mr. Tanaka has reached among the manufacturers of Japan was recognised in 1910, when he was appointed a member of the Tokyo Committee to select exhibits for the Anglo-Japanese Exhibition held in London that year. Mr. Tanaka was deputed to visit London, and he made an extensive tour of Europe, enquiring into conditions of manufacturing in various countries. In July, 1917, the Bureau of Decorations conferred on Mr. Tanaka a special silver cup in recognition of his services to the manufacturing industries of Japan. The Tanaka Gomei Kaisha is capitalised at Yen 50,000. Mr. Mokubci Tanaka is the Managing Director of the Tanaka Gomei Kaisha.

centres in foreign countries. Principal among the lines handled are all sorts of flax, hemp, and cotton goods, fishing tackle, provisions, chemicals, and sundries. The firm imports hemp, jute and flax, cotton, wool, all sorts of vegetable fibres, Hessian cloth, metals, such as steel, tin, etc., dyestuffs, copra, cocoanut oil, cedar, black lead, chemicals and agricultural stuffs. The bulk of these imports are either sold direct to the local trade, or are worked up into manufactured goods in the factories of Ogura & Company. Exports comprise the finished articles in hemp, flax, cotton and woollen goods, chemicals, agricultural produce, canned provisions, stationery and paper, lacquer ware, glass manufactures, filter cloth and all kinds of sundries. These articles go to Great Britain, the United States, Australia, India, China, the Straits Settlements, and Asiatic and European Russia. The factories and godowns are at Nishimarucho, Koishikawa, Tokyo, and there are branch establishments at Yokohama, Osaka,



OGURA & COMPANY: THE YOKOHAMA OFFICES — THE MAIN GODOWN, TOKYO — THE HEAD OFFICE, TOKYO

Kobé, Hankow, Chiu-chiang, Wu-chung, Singapore, and Manila. The firm's godowns and factories are mainly of stone and brick, though some portions are of wood. They cover an area of over 1,000 *tsubo*, and comprise two- and three-story buildings. About 200 clerks and other assistants are employed in the different offices, and 300 hands are engaged in the works and godowns. The annual wages bill is about Yen 50,000. What the original capital of this firm was is unknown, but to-day it is about Yen 200,000, and the annual turnover is approximately Yen 2,000,000.

Messrs. Ogura & Company are agents for the Teikoku Seima Kaisha, the Taiwan Seima Kaisha, and the Nihon Seima Kaisha, as well as for other industrial concerns. They are represented abroad as follows: New York, American Import and Export Corporation; Belfast, Ireland, Mr. D. K. Duncan; Singapore, Arisaka Riichi; Vladivostock, Hara Shoten; and Sydney, Australia, Messrs. E. Bentley & Sons. The head office of the firm is at No. 3 Koamicho, Ichome, Nihonbashi-ku, Tokyo. Mr. Kyubei Ogura is the proprietor of the busi-

ness. Mr. T. Hiraga is manager of the head office at Tokyo, and Mr. Takahashi is in charge of the important branch at Yokohama.

SUZUKI AND COMPANY

THE name of Suzuki & Co. is familiar to all those who are in any way connected with the commerce and industry of Japan. The firm was established in 1887, and is now one of the most influential houses in the domestic and foreign trade of the country, there being branches and agencies throughout Japan, and in every important commercial centre abroad, since the business is world-wide in its extent. Not only are Messrs. Suzuki & Co. one of the largest importing and exporting concerns, but they are managing agents for several dockyards and industrial companies, as well as being proprietors of large factories which produce many lines for export.

The Tokyo branch of Messrs. Suzuki & Co. transacts a large volume of business of a general nature, each department being busily engaged in attention to the various different activities of the concern. Among the imports are such lines as sugar, rice, wheat,

flour, cotton, fertilizers, iron, steel, ship-building materials and railway requirements, machinery, metals, ores, timber, chemicals, etc. Exports comprise practically every Japanese natural or manufactured product, and merchandise of various kinds, shipment being made to Europe, the United States, India, China, the South Seas, Australia and elsewhere. The Industrial Department deals with the firm's interests in camphor and methol refineries, fish and vegetable oil, chemical works, rice mills, alcohol distillery, and coal mines. Our illustration in connection with the Tokyo branch shows the bean-oil factory which is located at Shimidzu, Shizuoka Prefecture.

The Tokyo office is situated at Nos. 52 and 53 Koamicho, Nichome, Nihonbashi-ku, Tokyo. This branch was opened on May 5, 1915, and is now under the management of Mr. K. Kubota. The number of employees at the Tokyo office is one hundred and twenty.

HOB0, KONDO AND COMPANY

MESSRS. HOB0, KONDO & Co., or as they are styled in Japanese, the Hobo Kondo Gomei Kaisha, are importers and exporters,



BEAN OIL MILL OF SUZUKI & CO., SHIMIDZU, SHIZUOKA PREFECTURE



HOBBS, KONO & CO.: THE TOKYO OFFICE — SCENE IN ONE OF THE GODOWNS — ENTRANCE TO YOKOHAMA PREMISES —
THE TOKYO PREMISES



ENTERPRISING MERCHANTS OF TOKYO AND YOKOHAMA

(Left to Right, Upper Row) Mr. M. OGAWA, Managing Director, Nippon Shoji Kaisha, Ltd.—Mr. S. MATSUYAMA, of Matsuyama Jimusho—Mr. SEISUKE KORO, President, Southern Pacific Trading Co., Ltd.—Mr. G. KUMAZAWA, Proprietor, G. Kumazawa & Co.—Mr. T. SHIMIDZU, Proprietor, Shimidzu Trading Co.—Mr. SEIZO OHSAWA, Proprietor, Ohsawa Seizo Shoten
 (Middle Row) Mr. KONOSUKE ABE, of Abe Kobei—Mr. K. SUGIYAMA, Managing Director, International Trading Corporation, Ltd.—Mr. S. MOGI, Managing Partner, Mogi & Co.—Mr. KOBEI ABE, Proprietor, Abe Kobei—Dr. JOKICHI TAKAMINE, President, Sankyo & Co.—Mr. M. SHIOHARA, Managing Director, Sankyo & Co.—Mr. K. YAMAMOTO, Managing Director, Imperial Theatre, Tokyo
 (Lower Row) Mr. M. YAMAGUCHI, Proprietor, Yamatake & Co., President, Japan Precision Works Co., Ltd., President, Japan Oxygen Co., Ltd.—Mr. M. TANAKA, Proprietor, Tanaka Gomei Kaisha—Mr. S. NAKAI, President, Nakai & Co., Ltd.—Mr. KYUBEI OGURA, Proprietor, K. Ogura & Co.—Mr. TOKUTARO HIRAGA, General Manager, K. Ogura & Co.—Mr. G. MORITANI, Principal, Moritani & Co.

and manufacturers' agents, and are very widely known throughout Japan and the Far East, an extensive business having been built up over a long period, during which the firm has established a high reputation. The business was formerly carried on under the name and style of Shigekichi Kondo, from 1907 to 1915, when the organisation was changed into the present joint partnership which comprises Messrs. Sankuro Hobo and Shigekichi Kondo, Managing Directors, and Messrs. Yeinosuke Totsuka and Teisuke Kondo. Messrs. Hobo, Kondo & Co. carry on a general business as exporters of Japanese articles, chiefly dealing in curios and toys, and numerous other lines. They are also

importers of several particular lines, and as exclusive agents for Ronco, Limited, London, for Japan, Chosen, and Manchuria, they possess a valuable connection. In the Ronco products Messrs. Hobo and Kondo do a large business which is steadily expanding. Their well equipped showrooms in Tokyo and Yokohama display the Ronco appliances to the best advantage, and it is not surprising to learn that through such active agents, the Japanese business houses, eager on their part to avail themselves of all modern business methods, are rapidly learning the value of the Ronco lines.

Both Messrs. Hobo and Kondo, and their partners, have had considerable experience

of foreign trade, and possess a thorough knowledge of the English and other foreign languages. This also applies to the majority of their different staffs, and greatly facilitates the transaction of business with foreign firms locally and abroad. All business and correspondence are treated exclusively through the head office, No. 2 Nichome, Honza-imokuchō, Nihonbashi-ku, Tokyo, except transactions relating to Hongkong, India, and the Straits Settlements, which are dealt with in the Asiatic Department of the Yokohama branch under the management of Messrs. M. A. Sofaer and D. Darab, who are both British subjects. The Ronco business is handled in Tokyo and Yokohama.



C. TSUBOYA & CO.: SCENE IN THE GENERAL OFFICE — CORRIDOR LEADING TO OFFICES, TAKEN FROM THE CENTRE FLOOR —
THE MANAGER'S OFFICE — THE STAFF

Branches of Messrs. Hobo, Kondo & Co. are also established at No. 3 Sanchome, San-nomiya-machi, Kobé, and at No. 27 Sanchome, Nakanocho, Nakaku, Nagoya. The firm has factories in Tokyo, Yokohama, and Nagoya, and warehouses and shipping departments at each branch. The head office in Tokyo consists of the main building (brick, two storeys), and in addition there are two fire-proof two-story warehouses, one one-story wooden building, and the servants' quarters, the whole, together with ample ground space for the arrival and departure of goods, covering an area of 257 *tsubo*, forming a very valuable and commodious property for general business purposes. The Kobé and Yokohama premises are of brick. The Nagoya branch and the branch establishment in Tokyo are wooden, but the warehouses attached are fire-proof, being constructed according to the Japanese system to secure this result. Messrs. Hobo, Kondo & Co. give employment to thirty persons in their head office and stores, and about ten persons are engaged at each of the several branches. Some idea of the importance of the business transacted by this well-organised concern may be gathered from the fact that the annual turnover is approximately Yen 3,000,000.

In Yokohama as well as in other ports and cities throughout the world, the business man will find that all his requirements for putting his office in order can be obtained from the agents of that enterprising London firm, Roneo, Ltd. The offices and showrooms are situated at 77 Main Street, where all kinds of up-to-date appliances for promoting business efficiency are attractively displayed. At the time of the compilation of this publication the war is still going on, and business men are certainly very fortunate in that they have no difficulty in obtaining Roneo specialities, and share in the same service rendered the London business men, who have the benefit of being so much nearer the factory. To the majority of commercial men "Roneo," and all it stands for, is too well known to need detailing at length here, but one should remember that a visit periodically is necessary in order to keep pace with new ideas and improvements. In addition to the Roneo Duplicator, Roneo Letter Copier, Roneo Steel Filing Cabinets and Systems, many innovations may be seen which are an absolute necessity in the acceleration of business.

C. TSUBOYA AND COMPANY

THIS firm, which was established in January, 1913, has developed a valuable business, comprising many new lines of activities which were not very well known

at the time Mr. Chuzo Tsuboya directed his attention to them. These lines are largely connected with the exploitation of Japan's resources in rare metals, such as tungsten, and similar products utilised so largely since the outbreak of the war for hardening steel. Messrs. Tsuboya & Co. have built up an extensive trade in metals, as well as handling other more general lines such as curios, cereals and so forth. The firm has its own factories which are situated at No. 82 Higashi Ogibashi-machi, Fukagawa-ku, Tokyo, and at No. 1 Hanabusa-cho, Kanda-ku, Tokyo. These factories are known respectively as the Omura and Kanda factories. The first covers an area of 1,050 *tsubo*, and the Kanda factory extends over 450 *tsubo*, the buildings being constructed of stone, brick, and wood, three storeys high. The motive power used is electricity, and about a hundred work people are employed.

The firm imports minerals, shipbuilding and railway materials, and general machinery, and exports tungsten ore, molybdenite ore, metallic tungsten, tungsten trioxide, every description of ferro-alloys, sulphur, cereals, oils, and curios. The bulk of the shipments go to Europe and America, but an extensive trade is also done with China in certain lines. Agents of the firm are located at Shanghai, London, New York, and San Francisco. It is estimated that the yearly output, or turnover, is about Yen 3,500,000, but the trade is constantly expanding, the firm's operations being governed by a progressive policy, which is responsible for the prosperous condition of the business. The head office of Messrs. Tsuboya & Co. is at No. 7 Hiramatsucho, Nihonbashi-ku, Tokyo, and there are branch offices at Osaka and Kure.

FUTABAYA AND COMPANY

THE Japanese are great lovers of Nature, and their conceptions of the beautiful in Nature's works are frequently to be found expressed even in business undertakings. It is not uncommon to find names of business houses, trade marks, etc., which suggest something of Nature. Such, for instance, is expressed in the name Futabaya. This name had its origin in the idea of Mr. K. Inomata, founder of the business of Futabaya & Co., that his enterprise should suggest by its name the twin leaves of a bud in which lay all promise of the development of the large and strong tree. The literal meaning of *futaba* is "the twin leaves of a bud."

Convinced of the success of his enterprise which was to develop from a small beginning into a great and powerful undertaking, the late Mr. K. Inomata founded the business as a personal venture many years ago, the original capital being 50,000 yen. The trade

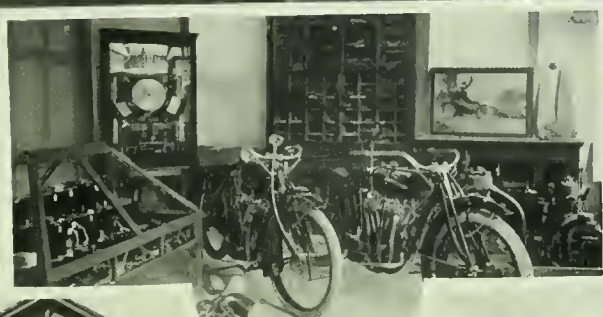
name was then Futabaya. In 1903 the business became a *goshi kaisha*, or partnership, members of the late Mr. K. Inomata's family being admitted to the firm. Through the energy and sound business policy of the founder, supported particularly by the vigorous work of his son-in-law, Mr. Taisaku Inomata, Futabaya & Co. realised the earliest expectations of its founder, and has developed in a manner comparable to the growth of the strong tree from the bud.

Messrs. Futabaya & Co. are general importers and exporters and manufacturers, their special lines being cycles, motor cycles, motor cars and their accessories, rubber goods, chemicals, hardware, etc. The firm does a splendid and increasing business in all these lines, and has the great advantage of being in close touch, through family connections, with the two factories for the output of cycle parts, rubber goods, etc., owned by Mr. Kichihei Inomata, though conducted by that gentleman as his private undertaking. Futabaya & Co. are among the leaders in the cycle and automobile trade. They import a wide variety of lines, and have the agency for the famous Indian motor cycle. Their manufactured lines are exported to China, India, the Malay States, and Dutch Indies. Attention is not, however, confined solely to this trade, for the firm is importing all classes of hardware and manufactured goods for the Japanese market, and its operations will be very widely extended in the near future, the Directors being determined to develop the business in every direction. They will import large quantities of raw materials to be made up into manufactured goods, Messrs. Futabaya & Co. being convinced that there is a wide scope for the exportation of Japanese-made goods.

Messrs. Futabaya & Co. have their head office and handsome showrooms at No. 7 Tatami-cho, Kyobashi-ku, Tokyo. Their main warehouse is located at Shinanomachi, Yotsuya-ku, Tokyo. There is a branch at No. 7 Utsubo Shimo-dori, Nishi-ku, Osaka, and an American branch has been temporarily established at No. 30 Church Street, New York. The firm employs about thirty clerks, mechanics, etc. The co-Managing Directors of the firm are Messrs. Kichihei Inomata and Taisaku Inomata, though the latter gentleman chiefly attends to the direction of affairs.

OHSAWA SEIZO SHOTEN

THE Ohsawa Seizo Shoten are general importers and exporters, established in 1911. The general office and showroom is at No. 4 Shichome, Koamicho, Nihonbashi-ku, Tokyo; the sawmills and timber yards are at No. 18 Kibamachi, Fukagawa-ku, Tokyo, and the



FUTABAYA & CO.: THE MANAGER'S PRIVATE OFFICE — THE MOTORCYCLE SHOWROOM — TOKYO HEAD OFFICE —
THE CHARMING RESIDENCE OF MR. T. INOMATA, CO-MANAGING DIRECTOR OF FUTABAYA & CO.

oak furniture factory is at No. 19. The telegraphic address is "Easterning," Tokyo. The main line of business of this firm formerly was and is at present the exportation of hardwoods from Hokkaido, especially oak, for Europe, North America, Africa, Australia, and India. The company has made the most strenuous efforts to advance the trade in which it is interested, and has made endless improvements in business, to give the very finest results, and accordingly has made a rapid development and enjoys the highest confidence of its customers in the countries above mentioned. Its reputation is one of entire trustworthiness and this is reflected in the increasing volume of orders received day after day from the important centres of Australia and Africa.

Owing to the growth of its relations with foreign firms, the Ohsawa Seizo Shoten has started as general importers and exporters of Japanese goods, for which there is such a strong demand. Under present war conditions, what with restrictive government regulations and lack of cargo space, the Ohsawa Seizo Shoten, like many other concerns, has been seriously handicapped in filling orders, but it nevertheless invites early inquiries, especially for Japanese agricultural products and any other manufactures, as well as the materials for manufacture, etc., from present and prospective customers in Europe, North America, Australia and elsewhere. There is every reason to foresee that, immediately the war terminates, the company will be in a most favourable position to supply all foreign requirements and give that faithful and prompt attention to orders which is its characteristic.

In the oak-working factory the company utilises the short lengths of wood, working them up in furniture and interior decorations and for other general purposes, with careful attention and endless improvements in machinery and methods of manufacture and treatment of timber.

MATSUYAMA AND COMPANY

THE business of the Matsuyama Jimusho, or Matsuyama & Co., comprises, apart from the ordinary lines of the import and export trade, a number of activities which are of first rate importance to the secondary industries of Japan. To the principal of the house, Mr. Shigeru Matsuyama, is due the credit for a great deal of enterprise, and the development of new lines which were practically unknown until he devoted his attention to them. Mr. Matsuyama's business career is an instance of the good use to which the best trained commercial men of Japan put the knowledge gained by them in foreign fields.

Mr. Matsuyama went to the United States in 1895 to study the science of mechanical engineering. He was graduated from Michigan University in 1900 with the degree of B.Sc. (M. E.), and after another year devoted to the practice of the theories he had learned, he returned to Japan in 1901 and entered the service of the Mitsui Mining Company, by which he was engaged to superintend the planning and construction of mining plants. Mr. Matsuyama joined the Mitsui Bussan Kaisha in 1904 and was appointed chief of the Machinery Department at the company's New York Branch in 1906. He devoted a great deal of attention to the development of the machinery trade with Japan and in 1909 returned to Japan to take charge of the Mitsui Bussan Kaisha's machinery and metal department at Moji. In 1912 Mr. Matsuyama resigned from the company and entered upon his present business. It may be seen, therefore, that the principal of Matsuyama & Co. is well qualified by training and experience to carry on a brisk trade in machinery and hardware generally, and, as a matter of fact, Mr. Matsuyama has achieved a success which is enviable. Since the war the development of his interests has been extensive. In 1916 the volume of imports and exports was Yen 800,000, but this sum was doubled in 1917, such a remarkable growth necessitating an extension of premises and the planning of an expansion of activities.

Mr. Matsuyama principally imports from England and the United States and exports to those two countries, as well as to France, China, India and the South Seas. The following are the principal articles in which the firm deals: Machines and tools for machine shops, mining machinery and equipment, electric machinery and equipment, motive power machinery and equipment, Ikeda's patent water tube boilers, locomotives and railway supplies, steel rails and accessories, steel pipes, gas pipes and fittings, electric insulating materials, electric sheets, mining steels, wire ropes, chains, ship-weights materials, marine auxiliary machines, steel wires, copper wires, bright nuts, black nuts, rivets, steel plates, steel bars, channels, angles, beams, pig iron, spiegel-isen, silico-spiegel, ferro-manganese, ferro-silicon, ferro-chrome, ferro-vanadium, ferro-tungsten, ferro-molybden, ferro-titanium, metallic tungsten, tungsten trioxide, nickel, spelter, antimony, aluminum, lead, tin, copper, sulphate copper, sulphur, manganese, ores, tungsten ores, molybden ores, graphite, zinc, chrome ores, asbestos, micas, talcs, barites, silica, clays, boiler compound, mineral oils, fire bricks, rosin, cyanides, caustic sodas, and many other chemical products, buttons and other

sundries too numerous to mention. In all these lines a large import and export trade is done, but, in addition, Matsuyama & Co. have other interests.

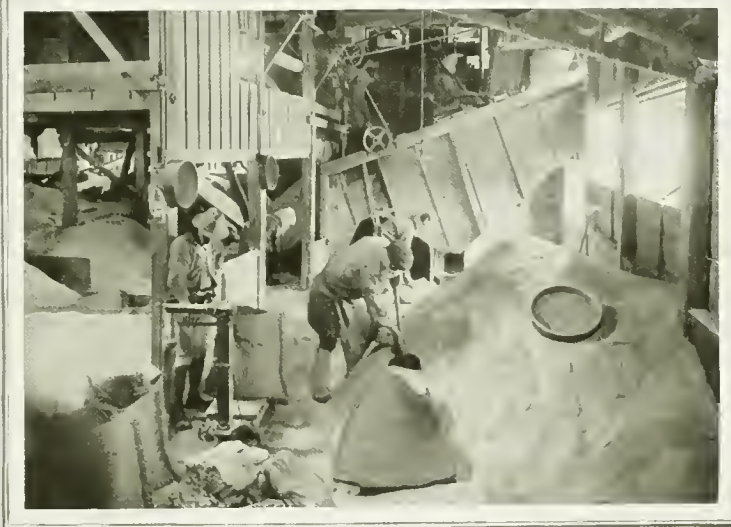
The firm has a silica-crushing factory at Kameido, a suburb of Tokyo, and an asbestos factory at Ohsaki. At these factories large quantities of material are produced to meet the strong local demands from steel makers, glass makers, brick makers, and manufacturers of asbestos articles and products. The factories are equipped with the latest machinery, comprising rock crushers, asbestos beaters, etc. For manganese and other ferro-alloys the firm has close connections with mines in Akita and Aomori Prefectures, and is exporting alloys of excellent quality. An extensive warehouse is maintained at Zaimokugashi, Nihonbashi-ku, Tokyo, where there is always in stock, rails, steel manufactures, ferro-alloys, etc., in large quantities to meet the demand of the market at any time. A staff of technical experts is employed whose services are at the disposal of local customers, and through them new products are continually being introduced to the market, while Japanese-made goods are placed before foreign buyers. The whole business is conducted on the most progressive lines and is a good example of the thorough organisation which has been introduced in the great modern Japanese houses.

The head office of the Matsuyama Jimusho is at No. 7 Hiramatsucho, Nihonbashi-ku, Tokyo.

NAKAI AND COMPANY, LIMITED

THIS company claims the distinction of being the oldest paper-trading concern in Japan, the business having been founded in 1867 by the late Mr. Saburobei Nakai. At that time there was, of course, very little paper made in Japan, and the business was almost entirely confined to the handling of foreign-made products, but with the expansion of the paper-making industry within recent years, the company has realised an enormous trade, both in import and export lines. For many years the business was conducted as the private enterprise of Mr. Nakai and his family, then it was turned into a limited partnership, and in 1917 it was reorganised as a limited liability company with a capital of Yen 2,000,000.

Messrs. Nakai & Co., Limited, operate as wholesale paper merchants, dealing in imported and locally made products of every description. They handle practically all classes of newsprint paper in reels and sheets, general printing and writing papers, straw and card board, packing paper, and so on. Furthermore, they do a large trade in paper pulp, which is obtained from Karafuto



MATSUYAMA & CO.: GENERAL VIEW OF SILICA FACTORY, SHOWING SILICIOUS ROCK FOR THE CRUSHERS — GROUP COMPRISED OF THE PROPRIETOR, THE PRINCIPAL OFFICERS, AND THE HEAD OFFICE STAFF — SCENE IN THE GENERAL OFFICE — POWDERED SILICA BEING WEIGHED AND BAGGED



NAKAI & COMPANY: THE HEAD OFFICE AND GODOWNS—THE OSAKA BRANCH

and brought to Hokkaido, or is shipped abroad to foreign paper manufacturers in China, India, Siam, Australia, the United States and elsewhere. The company is the selling agent for such important paper manufacturers as the Fuji Paper Mills Co., Ltd., the Oji Paper Mills, the Kyushu Paper Mills, and the Chuo Paper Mills, and they hold altogether seven different agencies for mills. Nakai & Co., Ltd., number among their clients the Imperial Government Monopolies Bureau and the Government Printing Office, beside other important Government departments. Some idea of the extent of the trade which passes through the company's hands may be gathered from the fact that the annual turnover is about Yen 20,000,000. The head office is at No. 7 Jukkendana-cho Nihonbashi-ku, Tokyo, and there are branches at Osaka, Nagoya, and Kyoto. In addition, the company is represented at Shanghai by the Daishin Shokai. The main warehouse of the company is a four-story stone building of modern construction. Mr. Sannosuke Nakai is President of the company. The other Directors are Messrs. Yakichi Tanino (Manager of the Osaka branch), Mijiro Nakai, and Shigeru Inui.

TOKIWA & COMPANY, LIMITED

MESSRS. Tokiwa & Co., Ltd., is a company that has developed to a remarkable extent in the last year or two, having expanded from almost purely an insurance broking business, into that of insurance, and import and export and commission merchants and ship brokers, the activities of the company covering a wide range of commercial enterprises. Originally the establishment was known as the Nitto Shokai, then working only for the Liverpool & London & Globe Insurance Co., Ltd., as their agents for Japan. It was in 1910 that Mr. Goro Matsukata bought the business from the Nitto Shokai and it was, indeed, at this time that the trade name of "Tokiwa" was adopted. This means literally in Japanese, "everlastingly green," or more appropriately for such an enterprise, "constant" or "permanent." Since Mr. Matsukata took over the business there has been a most marked expansion. He formed a limited liability company with a capital of 500,000 yen of which 160,000 yen is paid up. At the same time the South British, the New Zealand, and the Scottish Union Insurance Companies appointed the Tokiwa & Co., Ltd., their agent, testifying to the high respect in

which the company is held by foreign corporations. Beside the above named agencies, which in themselves mean a vast volume of business for Tokiwa & Co., Ltd., the company opened a department for the transaction of general commerce in 1916, the activities of this new department embracing general brokerage, and the import and export of merchandise, machinery, and products.

The principal lines of import are: Steel, pig iron, galvanized iron, sheet iron, tin plate, nickel and other metals; boiler, electric machine, and other machinery, parts and accessories, and machine tools of every description, shafting, etc.; piano wire, spring wire, galvanized wire, wire rope, and nails of every description; boiler tube, gas pipe, etc.; materials for railway construction, materials for construction of buildings, bridges, ships, docks, mines, etc.; quicksilver, drugs and chemicals, paints and colours, etc.; eyeglasses, telescopes, microscopes, surveying instruments, etc.

The main lines of export are: Electric and alloy, heating apparatus, crucible or gas apparatus and parts thereof, enamelled ware, glass ware, buttons, surgical instruments, pressure and vacuum gauges, every kind of

gauges, clinical thermometers, other kinds of metres, and all kinds of goods for surgical use; copper, zinc, lead, sulphur, and other kinds of mine produce; fish oil, whale oil, soja bean oil, colza oil, peppermint oil, etc.; ammunition and sundry goods.

The company has two branches, one at Kitadori, Edobori, Nishi-ku, Osaka, and the other at Meiji-machi, Keijo, Chosen, and, moreover, three hundred agencies throughout the Empire of Japan, Formosa, and Chosen. Unquestionably the development of this business is due to Mr. Matsukata's influence, energy, and business experience. This gentleman has, in fact, had a sound commercial experience extending over many years, with some of the largest enterprises in Japan, notably the Kawasaki Dockyard Co., Ltd., Kobe, Japan Steel Works at Muroran, Hokkaido (Armstrong & Vickers, Associate in England), and he is now the proprietor and President of Tokiwa & Co., Ltd., the President of the Tokyo Gas & Electric Co., Ltd. (Agencies for the Studebaker Motor Car Co., National Motor Car and Vehicle Corporation, Empire Automobile Co., Interstate Motor Co., Nash Motor Co., and Republic Motor Tr'k Co.) President of the Tokai Mutual Life Ins. Co., Ltd., Managing Director of the Toyo Sugar Mfg. Co., Ltd., Director of the Toyo Marine Ins. Co., Ltd., Director of the Toa Cement Co., Ltd., and Inspector of the Ujigawa Hydroelectric Co., Ltd. Beside these business experiences Mr. Matsukata's family influence has also been a contributing factor to his success. He is a son of Marquis Masayoshi Matsukata, one of the Elder Statesmen of Japan, the present "Naidaijin" (the Keeper of the Privy Seal) and many times Premier of the country, who made his fame by his administration and his financial reforms.

YAMATAKE & COMPANY

AMONG the successful business men of Japan who have put their technical knowledge and experience to good use and have launched out on new lines, is Mr. Takehiko Yamaguchi, proprietor of the Yamatake Shokwai of No. 1, Yuraku-cho, Kojimachi-ku, Tokyo. This business covers a wide range of activity, but its main purpose is the importation and sale of high-grade machinery and machine tools, etc., principally for use in arsenals, dockyards, and railway shops. And as may be seen from the biography of its proprietor, no one is better fitted for handling such a trade than Mr. Yamaguchi himself. This gentleman is a native of Kagoshima, and was born in 1865. After his preliminary education, he took a long course in the technical school of the Tokyo Higher Industrial College, from which he was graduated in 1891.

For a few years Mr. Yamaguchi was an inspector of machinery in the Patents Bureau, engaged in the examination of models and plans submitted to that Bureau. In 1896 when Mr. Zenjiro Yasuda projected the formation of a nail factory he selected Mr. Yamaguchi as his Chief Engineer, and despatched him to Europe and America with instructions to examine closely the industry in those countries and to purchase the necessary

operations, and to-day the firm of Yamatake & Co. are sole agents for over forty of the best known American tool and machinery manufacturers. Mr. Yamaguchi's intimate knowledge of the requirements of the various construction concerns, and his thorough technical training have stood him in good stead, and his firm is doing what is probably one of the largest businesses in Japan to-day. Another factor making for

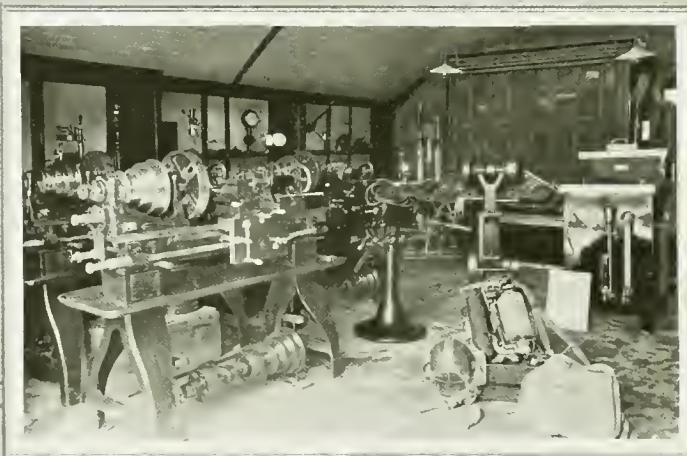
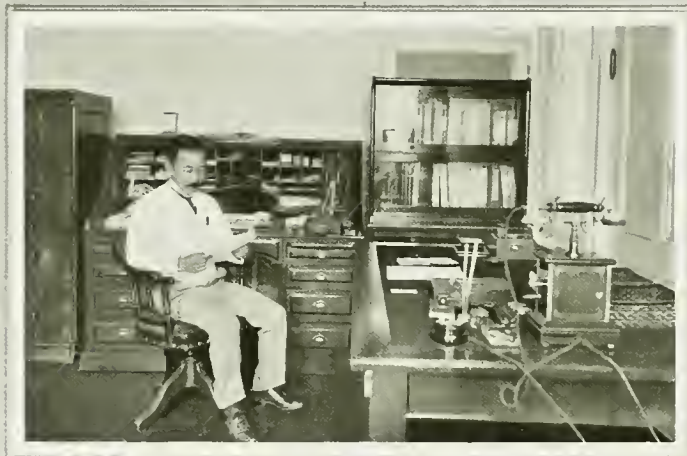


BUILDING IN WHICH ARE LOCATED THE OFFICES OF TOKIWA SHOKAI, LTD.

plant and machinery for the factory. On his return Mr. Yamaguchi took up the position of General Manager of the Yasuda nail factory, but it was found impossible to compete with the cheap imports from Germany, and the works were closed. On Mr. Yasuda's recommendation Mr. Yamaguchi was then appointed to a highly responsible post with the Hokkaido Railway Company, and became one of the managers. From this position he was selected as Manager of the Hokodate Dockyard Company, and so further extended his already wide knowledge of mechanical engineering, and the requirements of the industries of Japan. Mr. Yamaguchi's skill and capacity for organisation and control were prominently displayed during the Russo-Japanese War, when he rendered signal service to the nation by handling traffic and facilitating the building and repair of ships. At the conclusion of the war Mr. Yamaguchi came to Tokyo and established himself in his present business in 1906. At first he was merely local agent for one or two manufacturers, but gradually he extended his

the success of the business is that Mr. Yamaguchi has all along gauged the effects of the war accurately, and has anticipated the conditions which must arise in Japan. For instance, he was one of the first to realise that the great war would seriously interrupt supplies of various kinds of machinery and requisites from Europe, and he lost no time in strengthening and widening his connections with the manufacturing companies in the United States.

Arising from the business of the Yamatake Shokwai, and organised by Mr. Yamaguchi, are two other important enterprises, both highly successful adjuncts, or developments, of the phenomenal growth of the dockyard, machine shop, and arsenal undertakings in Japan. The first is the Japan Oxygen Company, to carry on oxy-welding and cutting operations. Mr. Yamaguchi was the first to introduce this system to the naval and other Government departments. As the oxygen had to be made in Japan after the cessation of imports, two factories were established under Mr. Yamaguchi's direction,



YAMATAKE & CO.: INTERIOR OF TOKYO OFFICE — MR. M. YAMAGUCHI, PROPRIETOR, IN HIS OFFICE —
SCENE IN THE TOKYO GODOWN

one in Tokyo and the other in Hiroshima. The second industry is that conducted by the Japan Precision Works. Considerable difficulty has always been experienced in gauging small parts, such as gun sights, etc., and it was to fulfil this requirement that the Japan Precision Works entered on the manufacture of special tools and gauges for the arsenals, dockyards, spinning mills, etc. The company has saved Government officials all the trouble of sending to Europe for tests of accuracy to be made, as the work can now be done by the Japan Precision Works. The Imperial Government has given its hearty support to the works, and the company has been appointed makers of many different classes of delicate mechanisms. Last year the Japan Precision Works were taken over by a limited liability company, having a capital of Yen 350,000.

Mr. Yamaguchi's services to mechanical engineering in Japan have been freely recognised. In February, 1917, he was appointed a member of the Tokyo Chamber of Commerce, to which he is now giving valuable assistance regarding all industrial and manufacturing interests.

NIPPON SHOJI KAISHA, LIMITED (THE JAPAN TRADING CO., LTD.)

THIS is a company that is bound to become an important factor in the general commerce and trade of Japan. It is an organisation under the auspices of the well known Kawasaki family, Mr. Hajime Kawasaki, principal of the Kawasaki Bank, the Japan Fire Insurance Co., and other concerns, being its President. The company was established on February 29, 1916, as a branch enterprise of the Kawasaki interests, and though the capital placed at its disposal was only Yen 500,000, this was merely by way of an initial investment, and it is now planned to increase the capital to Yen 5,000,000. As a matter of fact that sum has already been placed in circulation for Nippon Shoji Kaisha, Ltd. (The Japan Trading Co., Ltd.), the business having proved so successful. That is to say, the Kawasaki group have furnished the money to finance several industries and investments conducted by the company. The Managing Director is Mr. Makoto Ogawa, who was long in the service of the Mitsui Bussan Kaisha. Mr. Ogawa is one of the few licensed firearms and explosives

merchants, so that his company can deal in these lines, in which it occupies an excellent position among trading companies. The business of Nippon Shoji Kaisha, Ltd., is principally exporting and importing, but it is also investing in any promising manufacturing industry that comes under its notice. In this connection it is interested in mining affairs, in shipping and transport generally, and is also engaged in the selling, buying, and chartering of ships.

The main lines dealt in by Nippon Shoji Kaisha, Ltd., as import and export merchants are: Machinery and materials for the manufacture of same, cotton, cotton piece goods, hemp cloth, silk thread, silk cloth, woollen piece goods, etc., coal, coke and other fuels, cement, timber, stone, brick and other building materials, electrical and gas plants and appliances, material for railways, waterworks, and ships, metallic ores of every description, minerals, metal goods, materials, and wares, leather and skins and their manufactures, surgical, medical, and industrial chemicals, dye stuffs, etc. Among the other lines, mainly domestic products, handled by the company are, rice, cereals and fertilizers,



THE TOKYO PREMISES OF NIPPON SHOJI KAISHA

sugar, clothing, ornamental articles, paper and pulp, glass and glassware, lacquer and porcelain, oils and tallow, chemical and industrial articles and materials, toys and stationery, curios, cinematograph instruments and films, automobiles, aeroplanes, firearms, explosives, and military goods.

The head office of Nippon Shoji Kaisha, Ltd. (The Japan Trading Co.), is at No. 5 Kabutocho, Nihonbashi-ku, Tokyo (P. O. Box No. 39), and the Automobile Garage is at Uchisaiwaicho Kohjimachi-ku, Tokyo. There are branch and despatch offices at Osaka, Moji, Yokohama, Kobé, London, New York, and other commercial centres of importance. The company's banks and references are, for Japan, the Kawasaki Bank, and for abroad, the Yokohama Specie Bank. The principal officials of the company are: President, Mr. Hajime Kawasaki; Managing Director, Mr. Makoto Ogawa; Director, Mr. K. Sugiura; and Auditors, Messrs. M. Yoshii, S. Suzuki, and Kanco Kawasaki.

THE B. F. GOODRICH RUBBER COMPANY

The Japan offices of the B. F. Goodrich Rubber Company are under direct manage-

ment and control of the B. F. Goodrich Company, the well-known New York corporation with its head offices located at Nos. 1780-82 Broadway, New York City.

This corporation has a paid up capital of gold \$90,000,000.00 and during the year 1916 its sales figure reached the tremendous volume of gold \$71,000,000.00. The company dates its inception from the year 1869, when Dr. B. F. Goodrich settled in the city of Akron, where he started the nucleus of this wonderful industry and began building up the world-wide reputation that Goodrich rubber products now enjoy.

To-day the Goodrich plant has the proud distinction of being universally recognised as the "Largest Rubber Factory in the World," comprising a group of fifty-seven buildings, covering in excess of 4,000,000 square feet, where a staff of 18,000 employees are regularly engaged in the manufacture and handling of the many hundreds of different rubber articles the company produces. It is difficult to grasp the magnitude of the company's operations, but some conception of its scope and standing may be realised from the follow-

ing facts, representing a part of the daily volume shipped out from these factories: 5 miles of belting; 14 miles of hose; 70 miles of insulated wire; 17,000 pairs of boots and shoes; and 200,000 automobile tires and tubes.

To arrive at the stage outlined above, it will be apparent that something more than the mere ability to manufacture was required. Throughout the whole period of forty-eight years the company's interests have been in the hands of capable, far-seeing, and shrewd business men, who have handled its affairs along the lines of soundest business principles. It has always been their aim to maintain the highest standard of quality, till to-day the Goodrich trade mark stamped upon any rubber article is universally recognised and accepted as similar to the hall-mark on silver.

Along these same progressive lines new fields have been opened after a careful and first-hand study of existing conditions and possibilities. The company was until the year 1913 represented in Japan by agents. It then decided to open up a main branch in



KOBÉ PREMISES OF B. DIEDEN & CO.

Tokyo, and a little later subsidiary branches were started in the cities of Osaka and Kokura, the former to take care of the demand in the Kwansai district, the latter to take care of the demand in Kyushu. In addition to this, representative houses act as agents in the larger cities such as Sapporo, Nagoya, Nagasaki, etc. Japan's dependencies such as Korea, South Manchuria, and Tsingtau (North China) are handled from the main Tokyo branch, also by means of direct agents.

The principal demand in Japan for rubber goods is for those articles comprised in the mechanical line, and to take care of all ordinary requirements stocks to the value of Yen 150,000.00 to Yen 200,000.00 are regularly carried at the Tokyo and Osaka branches. Goodrich conveyor, elevator and transmission belting; water, fire, steam, and acid hoses, spiral, superheat, square duck, brass wire and cloth insertion packings; rotary drillers' hose, printers' blankets, pneumatic and air drill hoses, pump valves, etc., represent part of the goods regularly supplied to the Imperial Government Railways, Government dockyards, steel works, and arsenals; all the largest copper, coal, iron, silver, gold, and zinc mines; the many cotton, woollen, muslin, linen and other textile mills; sugar, beer, coke, and cement plants; shipbuilding and car manufacturing yards; paper and pasteboard mills; also all factories of importance throughout the Empire.

In addition there are carried large stocks of automobile, solid, and motorcycle tires and tubes, to look after a demand which is as yet small but steadily increasing. Goodrich druggist and surgical goods, sporting goods such as tennis and golf balls, baseball body protectors, etc., are in regular demand amongst the better class retail stores. Last but not least are the numerous sundry articles such as boots and shoes, rubber bands, rubber thread, raincoat material, stamp gum, dental rubber, dental dam, dental bulbs, plaster bowls, rubber matting, interlocking tiling, etc., for which there is an ever-increasing demand, and throughout the country the fact is recognised that, whilst Goodrich products are usually considerably dearer than the locally manufactured articles and those from other foreign countries, they are at all times to be depended upon and the service given is such as to render them "Cheapest and Best in the Long Run."

SOUTH SEA TRADING CO., LIMITED

THE trade possibilities of the South Sea Islands have been evident to the Japanese business man for some time past; a fact obvious from the number of companies

springing up for the sole purpose of trading with the islands.

The South Sea Trading Co., Ltd., commenced operations in 1893, as a private enterprise, and became a limited company with a capital of Yen 100,000 in 1899. No great degree of progress was made until the appointment of Mr. Tanakamaru as president of the company in 1915. The capital was then immediately increased from Yen 150,000 to Yen 500,000; to twice that sum within one year, and in 1917 to the present figure of Yen 3,000,000.

The sphere of operations was greatly increased to embrace shipping, shipbuilding, imports and exports, agriculture, and marine products. The head office of the company is at Kamiyanagiwarcho, Kyobashi-ku, Tokyo, with branches at Yokohama, Toba, Singapore, and forty other points throughout the South Sea Islands.

Naturally, the business of the company, especially in imports and exports, has increased *pro rata* with the capital, thus, in the three years 1912, 1913, and 1914, the total business was about Yen 800,000, as compared with imports Yen 3,500,000 and exports Yen 2,000,000 for 1917. Practically all lines for which there is a market are handled, but special mention may be made of copra, shell, tortoise-shell, manila hemp, rice, ivory nuts, etc., imported, and curios, provisions, clothing, cement, kerosene oil, beer, building materials, tinned provisions, biscuits, sugar, tobacco, cotton cloth, general necessities, etc., exported. Copra may be said to be the company's special line. Despatch offices are continually being opened

throughout the islands wherever the production warrants it. Moreover, the company has actually 3,000 acres of their own property under cocoanuts.

The company enjoys the great advantage, especially in these times, of owning a fleet of well equipped steamers and auxiliary sailing vessels, representing more than 20,000 tons, in addition to which 10,000 tons is chartered. The fleet is being continually added to, as the company's shipbuilding yard at Toba works solely for this purpose. At present three auxiliary sailing vessels of 1,000 tons each are nearing completion.

The following gentlemen are the principal officers of the company: E. Tanakamaru, Esq., President; R. Fujiyama, Esq., Adviser; Messrs. M. Ishikawa, S. Iwasaki, T. Sato, Directors, and Messrs. H. Kawasaki and S. Tanakamaru, Auditors.

SHIBAKAWA & CO., LIMITED

FOUNDED in 1866 by the late Mr. Shinsuke Shibakawa, father of Mr. Shinjiro Shibakawa, this enterprise operated privately until 1903 when it was turned into an unlimited company with a paid-up capital of Yen 500,000.

The expansion of the business has proceeded since the Meiji Restoration, *pro rata* with that of the import and export trade of Japan. Indeed, by the adoption of a most progressive policy, the formation, and, be it noted, retention of important international connections, and by setting an example of unquestionable business integrity, the company may be regarded as having done signal service in fostering the same. Thus, from the most humble



FEEDING SILKWORMS



TOKYO PREMISES OF THE SOUTH SEA TRADING COMPANY, LIMITED (NANYO BOYEKI KAISHA)



THE TOKYO OFFICES OF SHIBAKAWA & COMPANY, LIMITED

beginnings the Shibakawa Shoten, at present Shibakawa & Co., Ltd., has become one of the foremost houses in the country, operating with a capital of Yen 3,000,000, of which Yen 2,400,000 is paid up.

The head office is located in well constructed and spacious premises at No. 10 Koraibashi, 3-chome, Higashiku, Osaka, and branches equally up-to-date are maintained at No. 8 Sanaicho, Nihonbashiku, Tokyo. No. 91 Kitamachi, Kobé, No. 202 Yamashitacho, Yokohama, No. 18 6-chome, Demmacho Nishiku, Nagoya, No. 6 Lloyds Avenue London E. C., 120 Broadway, New York, No. 5 Hankow Road (British Concession), Shanghai, and No. 17 Wha-cheong Road (British Concession), Hankow.

The goods handled include practically all important lines listed in the Japanese Trade returns. Chief among the staple imports may be mentioned woollen and worsted goods, raw cotton and cotton goods, yarns, wools, tops, metals, machinery, paper, pulp, rosin, chemicals, drugs, dyestuffs, etc. The principal exports are woollen and worsted goods,

cotton goods, linen goods, raw silks, habutai and other silk products, hosiery, cotton and woollen yarns, hemp braids, rubber goods, matches, tinned foods, cereals, beans, oils, chemicals, minerals, etc.

As may be surmised from the above list, very close connections are maintained with the principal cotton and woollen mills of the country, such as the Osaka Woollen Manufacturing Company, the Nippon Woollen Manufacturing Company, the Tokyo Woollen Manufacturing Company, the Tokyo Woollen Cloth Manufacturing Company, the Tokyo Weaving Company, the Teikoku Hemp Manufacturing Company, the Nippon Worsted Spinning Company, and others, both for the supply of the raw material and the marketing of the finished products.

The business-like methods of the house attract special attention, and are explained by the length of time the company, has been engaged in foreign trade, and the further fact that, like Mr. Shinjiro Shibakawa, the able Managing Director, many of the heads of departments have a fluent knowledge of

English and other languages, and have gained valuable experience in the London and New York branches, and elsewhere abroad.

The officers of the company are: Mr. Yeisuke Shibakawa, President; Mr. Shinjiro Shibakawa, Managing Director; Mr. Einshin Yuasa, Director; Mr. Terukichi Shibakawa, Auditor; Mr. Gitaro Hirata, Auditor.

YOKOHAMA BUSINESS HOUSES

JARDINE, MATHESON & CO., LIMITED

IN previous numbers of this series of publications the complete history of the famous house of Jardine, Matheson & Co., Ltd., has been given, but in dealing with its operations in Japan it will not be out of place to refer again to the origin and early development of the gigantic concern whose name has been associated with the commerce and progress of the Orient for the best part of a century.

Among the officials of the old East India Company in the days when that politico-



OLD STYLE FOREIGN PREMISES OF JARDINE, MATHESON & CO., LTD., OCCUPIED BY THE FIRM FOR OVER SIXTY YEARS.
THE JAPANESE GATEWAY WAS ORIGINALLY BUILT FOR DEFENSIVE PURPOSES

commercial organisation was in the zenith of its power, was the late Dr. William Jardine. This was the time when Macao was at the height of its prosperity, and when the East India Company had practically a monopoly of the China trade. That monopoly came to an end in 1832, and Dr. Jardine started the premier mercantile house in the Far East, associated with him being Mr. James Matheson, afterwards Sir James Matheson, Bart., and Mr. Hollingworth Magniac. Offices were opened at Macao and Canton, and at once Jardine, Matheson & Co. set out to earn and justify, by their energy, enterprise, and honourable dealing, the name of the "Princely House," which was early applied to them, and has remained ever since. In 1835 Mr. Alexander Matheson, afterwards a baronet, came from India where he had received his business training, and was taken into the partnership by his uncle. As a result of the first "Opium War" with China, Hong Kong was ceded to the British in 1841. The place was then only a barren island and military post, with nothing to suggest its subsequent rise to great commercial prosperity and importance. The young firm of Jardine, Matheson & Co. found its business interests in Macao threatened by the short-sighted policy of the Portuguese Government, and turned its attention to Hong Kong, opening offices there in 1842, a year after the island had been opened. From that day to the present Hong Kong has been the headquarters of the great business, and history records how much the progress of the colony owes to the enterprise of Jardine, Matheson & Co. The enterprise and pioneer spirit which the old firm displayed at Hong Kong has actuated the operations of the house ever since, and there is not a commercial centre in the Orient that does not claim them amongst its earliest traders and benefactors. Jardine, Matheson & Co. were pioneers in Shanghai, after that port was opened to foreign trade by the signing of the treaty of October 24, 1842, and later on they were among the first British business houses to turn to Japan.

For the ten years from 1842 on, the firm grew in strength and prosperity, pursuing a simple policy of enterprise and fair dealing, ever expanding along new lines, and associating its fortunes with those of commercial centres the future of which only the greatest foresight could have imagined. The founder of the firm passed away, and with him went his early associates. Sir Alexander Matheson retired from business in 1852, and the successive heads of the business were Andrew, David, Joseph, and Sir Robert Jardine, Bart., whose death took place in 1905. These gentlemen were all nephews of the founder of the house, and all were men of



WINDING SILK ONTO BAMBOO STICKS FOR CROSS-WEAVING — PREPARING
HEMP BRAID FOR EXPORT — HEMP BRAID MILL

business in the best sense of the word, types of the merchant princes who in the eighteenth and nineteenth centuries did so much to build up British trade and prestige in all parts of the world. After the death of Sir Robert Jardine in 1905 the firm, for family reasons, was turned into a private limited liability company with the following directorate: Sir R. W. Buchanan-Jardine, Governing-director; Messrs. William Keswick, M. P., W. J. Gresson, and Henry Keswick (who succeeded his father, Mr. William Keswick, on the latter's decease), Managing-directors. During the most prosperous part of its career the old firm was under the control of Mr. William Keswick, M. P., who for forty years was its guiding hand, and under him it spread its branches in all the leading centres of trade in the Far East. Mr. Keswick it was who opened the Yokohama branch in 1859, almost as soon as the port was thrown open to foreign trade.

As to the activities of the company during its long existence, it would be almost like writing the history of the Far East to attempt to give in sequence the story of Jardine, Matheson & Co., Ltd., and to write of its operations is to write of the whole trade of the Orient in its varied phases. The enterprise of the company has been witnessed in practically every direction in which trade and commerce have expanded, and has been associated with every great movement tending to open up and develop new avenues of business. Jardine, Matheson & Co., Ltd., has done much in this latter direction, and the name is to-day inseparably linked with the progress of the East. The company is looked upon to take the lead in every new development, because its history has demonstrated its keen interest in all that pertains to the welfare of British trade generally, and the good of the centres in which its energies are in force. In Hong Kong and elsewhere Jardine, Matheson & Co., Ltd., has covered every field of enterprise, associating itself with the opening of harbours, construction of docks and wharves, railways, new industries, and many another movement tending to increase the general prosperity and make progress possible for all.

As stated above, the Japanese business was opened in 1859 when the outlook for the foreigner at Yokohama was not a very encouraging one in view of the attitude of the Japanese toward the newcomers. With customary foresight Mr. Keswick selected a business site that in after years was to be the threshold and centre of foreign commerce in the port. Appropriately enough the address is No. 1, the site of one and a half acres being situated close to the landing stage, on the Bund, and demarking the main

business artery of Yokohama. This site is held on perpetual lease, and in point of value there is none to exceed it. Here are established the offices, counting-house, and the raw silk inspecting rooms and godowns. The waste silk department is on Lot 21 and the shipping and insurance offices on Lot 22. The Kobé branch is at Nos. 83-85 Kyomachi, and from this centre is handled the export of hemp braid, Panama hats, copper, and many other lines comprised under the heading of general merchandise. At Shimomoseki the export of Japanese coal is principally dealt with. There are also branches at Tokyo, Shizuoka, and Nagasaki.

Jardine, Matheson & Co., Ltd., act as General Managers and General Agents for the following, among others: Indo-China Steam Navigation Co., Ltd.; the Glen Line, trading between British and Continental ports and Japan; the Indra Line, between New York and the Philippine Islands and Japan; the Waterhouse Steamship Line; the China Sugar Refining Co., Ltd.; the Hong Kong Cotton Spinning, Weaving and Dyeing Co., Ltd.; the Ewo Cotton Spinning and Weaving Co., Ltd.; the Shanghai and Hongkew Wharf Co., Ltd.; the Canton Insurance Office, Ltd.; and the Hong Kong Fire Insurance Co., Ltd. The following British insurance companies are also represented in Japan by the company: Alliance Assurance Co., Ltd., Royal Insurance Co., Ltd., and the London Insurance Co., Ltd. Jardine, Matheson & Co., Ltd., are selling agents for the New York Lubricating Oil Co., the Bombay-Burmah Trading Corporation, exporters of teak and hard woods, and the Mercantile Bank of India is another of their general agencies. Jardine, Matheson & Co., Ltd., are importers to Japan of machinery, metals, chemicals, drugs, raw cotton, wool and other requirements for the mills and factories of the country. They are exporters of raw and waste silk, braids and general produce of all kinds.

Apart from the London house, and the head offices for the Orient at Hong Kong, branches in addition to those mentioned for Japan are maintained at New York, Canton, Wuchow, Samshui, Swatow, Amoy, Foochow, Shanghai, Chinkiang, Nanking, Wuhu, Kiukiang, Hankow, Ichang, Changsha, Peking, Tientsin, Neuchuang, Vladivostock, Harbin, Tsingtau, and Taipeh.

The Manager for Japan is Mr. F. H. Bugbird, who in addition to the extensive interests which he has to control, still finds time to associate himself in many ways with the general welfare of the British trading and social interests of Yokohama. He is Vice-Chairman of the Foreign Board of Trade and Chairman of the Yokohama United Club

MASUDA AND COMPANY

THE foundations of the enormous business controlled by Messrs. Masuda & Co., of Yokohama, were laid as far back as 1862, by Mr. Kahei Masuda, shortly after the port had been opened to foreign trade, but the firm as it is to-day was actually started in 1884 when Mr. Masuzo Masuda, jointly with Mr. Fusajiro Nakamura, succeeded his father, and commenced trading in sugar, petroleum, and flour. Since that time the business has grown to control vast enterprises, and the operations of the firm now cover a very wide range, branches being established all over the world (directly by the Masuda Trading Company, Limited). Originally a merchant house, dealing only in certain lines of imports and exports, Messrs. Masuda & Co. are to-day general exporters and importers, shipping brokers and ship owners, factory owners and manufacturers, proprietors of a sugar refinery, and interested widely in a variety of industrial and trading enterprises. They control the Masuda Saw Mill at Yokohama, the Masuda Flour Mill, Kobé, the Masuda Sugar Refinery, Yokohama, the Matsuo Sulphur Mine at Iwate, the Kobé Drier Co., Ltd., Kobé, the Yokohama Beaneake Mill, and the Otori Tungsten Mine.

The principal imports of the firm are: Raw sugar, wheat and other grains, wheat flour, beancake, beans and other cereals, lead ore, zinc ore and concentrates, copper and nickel ores, iron and steel, tin and tin solder, sulphate of ammonia and other chemicals and fertilizers, wood pulp, hides and skins, wool-yarn and tops, raw cotton dye-stuffs, timber, rubber, all kinds of machinery and many other lines. Masuda & Co. export principally timber, sulphur, raw and refined sugar, rice, barley, oats, and other grains and cereals, fish oils, menthol, tinned salmon and crab, coal, various ores and metals and their alloys, electrical machinery, porcelain, Portland cement, toys, silk and cotton goods, glassware, chemicals and practically every line of Japanese manufactures or products.

The development of this huge business, the annual transactions of which cover a value of over Yen 50,000,000, has been due to the energy of Mr. Masuda and his original partner, Mr. Fusajiro Nakamura, both rated as among the most substantial and progressive of Japanese business men. From the inception of the firm Mr. Masuda has been extending its operations year by year. The Masuda Flour Mill was established in 1905, and the following year Mr. Masuda and his colleagues organised the Yokohama Sugar Refining Company, which was amalgamated in 1912 with the Meiji Sugar Company, chiefly through the efforts of Mr. Masuda, who saw



HEAD OFFICE AND GODOWNS OF MASUDA & CO., LTD. AT YOKOHAMA

the advisability of uniting the interests of the two companies, one manufacturing refined sugar and the other dealing in the crude product. At the same time Mr. Masuda directed his attention to trading with foreign countries, and established the Masuda Gomei Kaisha (Masuda & Co.), a partnership concern with a capital of Yen 500,000 and having for its members Messrs. Fusajiro Nakamura, Masutaro Masuda, Genjiro Ma-

leum in Japan, being the sole selling agent for the Meiji Sugar Company and the Masuda Flour Mill. It is one of the largest business establishments interested in the lines enumerated in Japan. The Masuda Gomei Kaisha, which originally took over the foreign trade branch of the Masuda Shoten, has its branches throughout Japan and abroad, and its representatives are stationed in or travel throughout Europe, Asia, Australia, and

W. M. STRACHAN & CO., LIMITED

A BUSINESS house with over fifty years of trading, along the most sound and progressive lines, to its credit, is W. M. Strachan & Co., Ltd., of No. 71 Main Street, Yokohama. This business was established by the earliest pioneers in the foreign trade of Japan, and with the house, at one time or another, have been associated some of the best known names in Yokohama's business history.

The inception of the business dates back to January 1, 1864, when Mr. Tom Thomas founded the house, which became known after July of that year as Strachan & Thomas, Mr. W. M. Strachan having arrived from Hankow to join Mr. Thomas in partnership. It is interesting to note that both the founders of the house are still alive and active in trade with Japan, though Mr. Thomas is no longer connected with the business. For the first few years an export business was done in uncoloured Japan tea, but the principal line was raw silk in the handling of which Messrs. Strachan & Thomas were among the largest houses, as they were among the first. The silk export trade was specialised in until about 1900 or a little later. In imports the old firm was early noted for Manchester cottons and cotton yarns, and Bradford goods, in which lines they have always held a premier position. It was about 1880 that the firm became W. M. Strachan & Co., and in 1894, when the business had grown far beyond the original conceptions of its founders, it was turned into a limited liability company with a registered capital of £50,000. A full measure of success has attended the widening of the concern and the increase in its scope of operations, and to-day the company has reserve funds considerably exceeding the amount of its capital.

Messrs. W. M. Strachan & Co., Ltd., are the only people among British traders in Japan dealing to any extent in wool, a line they have handled for many years. Prior to the war a large import business in this commodity was done with Australia, but to-day the main source of supply is South Africa. The other principal imports, apart from wool and Manchester cottons, are machinery, metals, and general lines. The exports comprise chiefly silk piece goods, tungsten and copper ores, and practically all lines of general merchandise and Japanese produce.

An important branch of the business is that of machinery. W. M. Strachan & Co., Ltd., are the agents for the Crossley oil and gas engines, and in this capacity they equipped the Tokyo Seiju Kaisha, probably the first mill in Japan to be installed with such modern plant. Though Japan is to-day producing a great deal of locally made machinery and the demand for the British plant is not so pronounced, W. M. Strachan & Co., Ltd., still



REELING RAW SILK

suda, and Yoichi Masuda, Mr. Masuzo Masuda himself acting as general supervisor. This new concern took over the foreign business of Masuda & Co., which it has since developed widely, particularly after the outbreak of the war. The Masuda Gomei Kaisha has its branches and agencies at all important centres in Japan and abroad, principal of which are the following: Tokyo, Kobe, Osaka, Nagoya, Otaru, Shimonoski, Naba, Tainan, Fusan, Dairen, Shanghai, Tientsin, Hankow, Tsingtau, Singapore, Calcutta, Bombay, Vladivostok, Sydney, Melbourne, Seattle, San Francisco, New York, and London. In February, 1917, another development took place when the Masuda Gomei Kaisha and their higher employees established the Masuda Boeki Kabushiki Kaisha (Masuda Trading Co., Ltd.), a limited liability company with a capital of Yen 1,000,000 to further extend the foreign trade operations of the group. The three businesses, though engaged in different lines of trade, are closely allied in order to ensure their respective and mutual success. Mr. Masuda's private firm, the Masuzo Masuda Shoten, is chiefly concerned with the sale of sugar, wheat flour, and petro-

North and South America. Its shipping department, brought into being by the extraordinary condition of the freight market after the beginning of the war, is doing active business in charterage, and has recently come to own a number of steamers and sailing ships. The Masuda Boeki Kabushiki Kaisha, trading in conjunction with the two concerns above mentioned, is carrying on an extensive trade abroad, and promises to be one of the greatest commercial organisations of the country. Its officers are as follows: President, Mr. Fusajiro Nakamura; Vice-President, Mr. Masutaro Masuda; Directors, Messrs. Yoichi Masuda, Inesaburo Masuda, Eihiro Shikawa, Tadasu Okabe, and Michisuke Kakinuma; Auditors, Messrs. Genjiro Masuda, Eihiro Masuda, Yasutaro Hasegawa, Eigoro Nagai, and Hachirotarō Nakamura. Mr. Masuzo Masuda is the Superintendent.

The three business concerns under the direction of the Masuda family are located at the same premises at Nos. 68 and 69 Shichome, Honcho, Yokohama. There are also extensive warehouses. A large staff is employed in the administration of the widespread interests which Mr. Masuda controls.



SCENE IN UYENO PARK
SEKAWA TEMPLE AND ITS CHERRY BLOSSOMS

handle a large volume of trade in machinery. The company is agent for the following concerns: The Guardian Assurance Co., Ltd.; London & Lancashire Fire Insurance Co.; Northern Assurance Co., Ltd.; Phoenix Assurance Co., Ltd.; Queen Insurance Co.; London & Provincial Marine & General Insurance Co., Ltd.; Royal Exchange Assurance Corporation; Sea Insurance Co., Ltd.; Federal Insurance Co.; The Mutual Life Insurance Co. of New York; The General Life Insurance Co.; The Provident Clerks' & Mutual Life Assurance Association; Crossley's Gas and Oil Engines; Sparkbrook Bicycles; Earl of Dudley's Round Oak Iron & Steel Works, Ltd.

In the early days the old firm was agent for the Equitable Life Assurance Society of the United States, until that Society, tempted by the promising field which the country offered, opened its own branch in Japan. They were also agents for the China Mutual Steam Ship Company until the sale of that line to Messrs. Alfred Holt & Co. The firm was connected with the establishment of several of the large manufacturing enterprises

in Japan and acted as supplier of machinery and raw material. Among the men who have been connected with the house in its various stages—some for many years and others for a comparatively short period—the following may be mentioned as those whose names are well known throughout China and Japan: Messrs. Tom Thomas, W. M. Strachan, James Downie, James Bissett, Frederick Pollard, W. Sutter, David McCulloch, Alfred Dare, G. H. Allecock, J. D. Hutchison, J. P. Reid, J. W. Crowe, J. T. Esdale, A. L. Robinson, Duncan McLaren, George Philip, F. H. Bull, E. T. Nicholas, W. Ross, and F. J. Lias. The Directors of the company in London are Messrs. W. M. Strachan, C. H. Pearson, J. D. Hutchison, and G. C. Bolton. Mr. F. O. Stuart is Manager at Yokohama. Here the company has its main godowns and offices in which employment is found for about 70 persons. The Kobe branch, from which the principal exports are hemp and straw braids, etc., is under the management of Mr. E. B. S. Edwards.

(See also page 664.)

DODWELL & CO., LIMITED

AMONG the many great concerns whose business ramifications extend throughout the Far East and Japan, is Dodwell & Co., Ltd. It is difficult to say where the activities of this company begin and where they end, for they embrace practically every branch of trade and commerce, the name being well known in every commercial centre of any importance. The history of the company is one of rapid growth and wide development. Mr. George B. Dodwell, founder of the business, and now Chairman of the Board of Directors in London, was for many years in Hong Kong and Shanghai with the firm of Messrs. Adamson, Bell & Co. When that concern went out of business in 1891 Mr. Dodwell, with Mr. Carlill, formed a partnership styled Dodwell, Carlill & Co., taking over the business interests of Messrs. Adamson, Bell & Co. and securing the services of many of that firm's employees. The new organisation was immediately successful, and in 1899 it became Dodwell & Co., Ltd. The capital to-day is £200,000. With its head office at Exchange Chambers, St. Mary



HEAD OFFICE OF W. M. STRACHAN & CO., LTD., YOKOHAMA



DODWELL & CO., LTD., YOKOHAMA: A CORNER OF THE OFFICES — THE STAFF AND HEAD OFFICE
— SCENE IN ONE OF THE GODOWNS

Axe, London, the company extended from its original branches, taken over from Adamson, Bell & Co., until it is now directly represented at Hong Kong, Shanghai, Poo-chow, Hankow, Canton, Yokohama, Kobé, Colombo, New York, Seattle, San Francisco, Tacoma, Victoria, Vancouver, and Antwerp, and in many other commercial centres the company is served by agents. To attempt to describe in a few words, such as would exactly and completely explain, the business activities of Dodwell & Co., Ltd., is an impossibility. They are not only merchants and importers and exporters, but are actively engaged in shipping, chartering, the coal business, in all branches of insurance, in general agency business, as well as in engineering and contracting, and a score of other departments of commerce, industry, and trade.

THE JAPANESE BUSINESS

THE Yokohama branch was actually established in 1877 by Messrs. Adamson, Bell & Co., and was taken over by Dodwell, Carlill & Co. when that firm came into being in 1891. To-day Dodwell & Co., Ltd., are foremost among the great British interests in Japan. They are shipping, chartering, and coaling contractors, fire and marine insurance agents, manufacturers' representatives, and agents for many well known British and American products, such as the British Anti-fouling Composition and Paint, Underwood typewriters, and Overland motor cars. They export coals, oils, straw envelopes, straw braid, matches, rugs, underwear, towels, flour, electric fittings, produce, chemicals, bronze powder, fertilizers, gunny tares and bagging, earthenware, tea and rubber chests, bottles, general glassware, and Japanese merchandise of all kinds. Among the principal imports handled by the company are piece goods, typewriters, paints, varnishes and oils, metals, chemicals, aqua ammonia, machinery, leather, shells, resin, and the famous Overland car. The Japanese business, under the general management of Mr. J. P. Warren at Kobé and Mr. O. M. Poole at Yokohama, is divided necessarily into many departments. In shipping Dodwell & Co., Ltd., are the agents for the Dodwell Line of Steamers for New York, and the following other lines: Mogul, Warrack, Saint and Barber Lines, New York and Oriental S. S. Co., American and Oriental S. S. Co., and the Natal Line. They are the secretaries of the New York Conference for Freights. In earlier times the company ran its own line of sailing ships, but to-day it is not directly interested as owners.

In the Insurance Department Dodwell & Co., Ltd., have the agencies for the Standard Life Assurance Co., the Yorkshire Insurance

Co., Ltd., the Alliance Assurance Co., the Ocean Marine Insurance Co., the Providence (Washington) Insurance Co. Regarding the very important representation of the Underwood Typewriter Company, which is in the hands of Dodwell & Co., Ltd., it is interesting to note that this typewriter finds exceptional favour amongst the Japanese and large numbers are being imported annually.

Dodwell & Co., Ltd., through its world-wide activities has done very valuable work in developing Japanese native industries. It was the pioneer foreign concern in the straw braid industry in Japan, and Mr. T. Niwa, who is in the company's service at Kobé, is a recognised authority on this important business. He is President of the Straw Braid Guild. The Yokohama office of Dodwell & Co., Ltd., employs forty-six persons, and the Kobé office, seventy-five. The company is also well represented in Tokyo by sub-agents for the especial purpose of pushing sales in that quarter.

Mr. Poole, the company's manager in Yokohama since January, 1916, has been with Dodwell & Co., Ltd., for twenty-one years, having served in the London, Hong Kong, and Kobé branches. He succeeded Mr. George Syme Thomson, upon the death of that very well known figure in the Far Eastern trade. Mr. Poole is an American by birth, and apart from his business activities, he is like many another principal of great foreign interests, deeply concerned in public and semi-public organisations. He is on the Executive Committee of the American Association, and Hon. Secretary of the Naigai Club. This latter institution fulfils a valuable function in bringing Japanese and foreigners into close contact in a friendly way. It consists of the heads of most of the important Japanese and foreign houses, and Mr. Ryoza Asano is Joint-Secretary with Mr. Poole. Among several other honorary positions which he fills in the commercial and social life of the community may be mentioned the secretaryship of the Nippon Race Club Golfing Association.

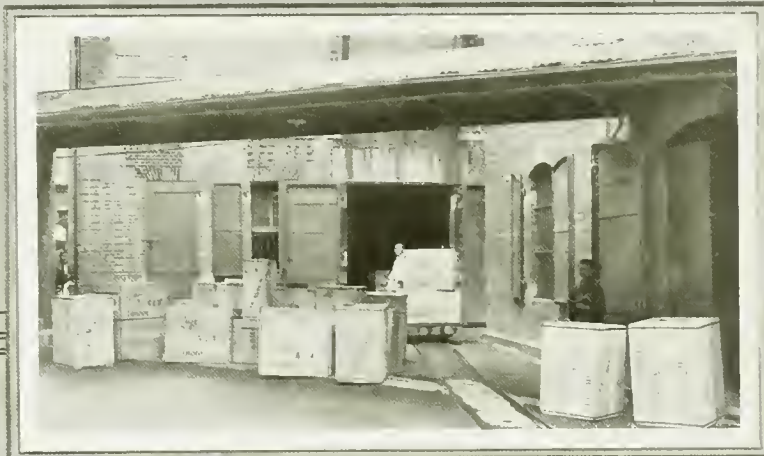
SAMUEL SAMUEL & CO., LIMITED

MESSRS. SAMUEL SAMUEL & Co. were first established in Japan some thirty years ago and continued trading as a private company until 1908, when owing to the great expansion of the business, it was decided to incorporate the firm as a limited liability company. From the inception of its business in Japan the firm took a conspicuous part in the development of the country, and came into closer relationship with the Japanese Government than perhaps any other foreign house has ever been. Through their London agents, Messrs. M. Samuel & Co., of

whom Sir Marcus Samuel, Bart., is the well-known head, Messrs. Samuel & Co. were enabled to float loans for the Japanese Government, and to supply, under special arrangements, the material for the construction of the railways and other public works. In more recent years they handled the camphor monopoly for the Government. With the growth of the economic and commercial independence of Japan the opportunity for such activities has necessarily become limited, and the nature of Messrs. Samuel Samuel & Co.'s business has changed in accordance with circumstances and the requirements of the times. Thus, while a decade ago their principal business was with imports, now it lies with the export of Japanese goods. The company has branch offices at Kobé, Tokyo, Shimonoseki, and at Taipeh, Keelung, and Takao in Formosa, while abroad it is directly represented by its own staffs at San Francisco and New York. In 1914 the immense possibilities of trade with India became apparent to Messrs. Samuel Samuel & Co., Ltd., and with the idea of extending their activities in the Indian market, they inaugurated a special Indian department in Kobé for the sole purpose of attending to this branch of their business. Their policy was successful from the outset and to-day they do a larger business with India than any other foreign firm or company in Japan.

At both the larger branches, Yokohama and Kobé, Messrs. Samuel Samuel & Co., Ltd., have an Engineering Department, each of which does a large business in the manufactures of the various well-known firms they represent, such as Messrs. Cammell, Laird & Co., the Fairfield Shipbuilding Co., D. & H. Haggie & Co., Asa Lees & Co., Petter & Co., Ltd., the Blackman Export Co., and many others. The company also has extensive shipping interests and is continuously engaged in the purchase, sale, and chartering of steamers. Messrs. Samuel Samuel & Co. are agents for the Shell Transport & Trading Co., the Anglo-Saxon Petroleum Co., Ltd., the Royal Mail Steam Packet Co., the East Asiatic Co., Ltd., the Swedish East Asiatic Co., Ltd., the Compania Transatlantica de Barcelona, and others. They also represent the Zocus Paint Co. for their well-known anti-fouling compositions for ships' bottoms. Messrs. Samuel Samuel & Co., Ltd., are the general agents for the Commercial Union Assurance Co., Ltd., the London & Liverpool and Globe Insurance Co., Ltd., the Union Insurance Society of Canton, Ltd., and the Alliance Assurance Co., Ltd.

The business premises and godowns of the company are at No. 27, Yokohama, and cover a considerable area. The Managing



HEAD OFFICE AND GODOWNS OF SAMUEL SAMUEL & CO., YOKOHAMA



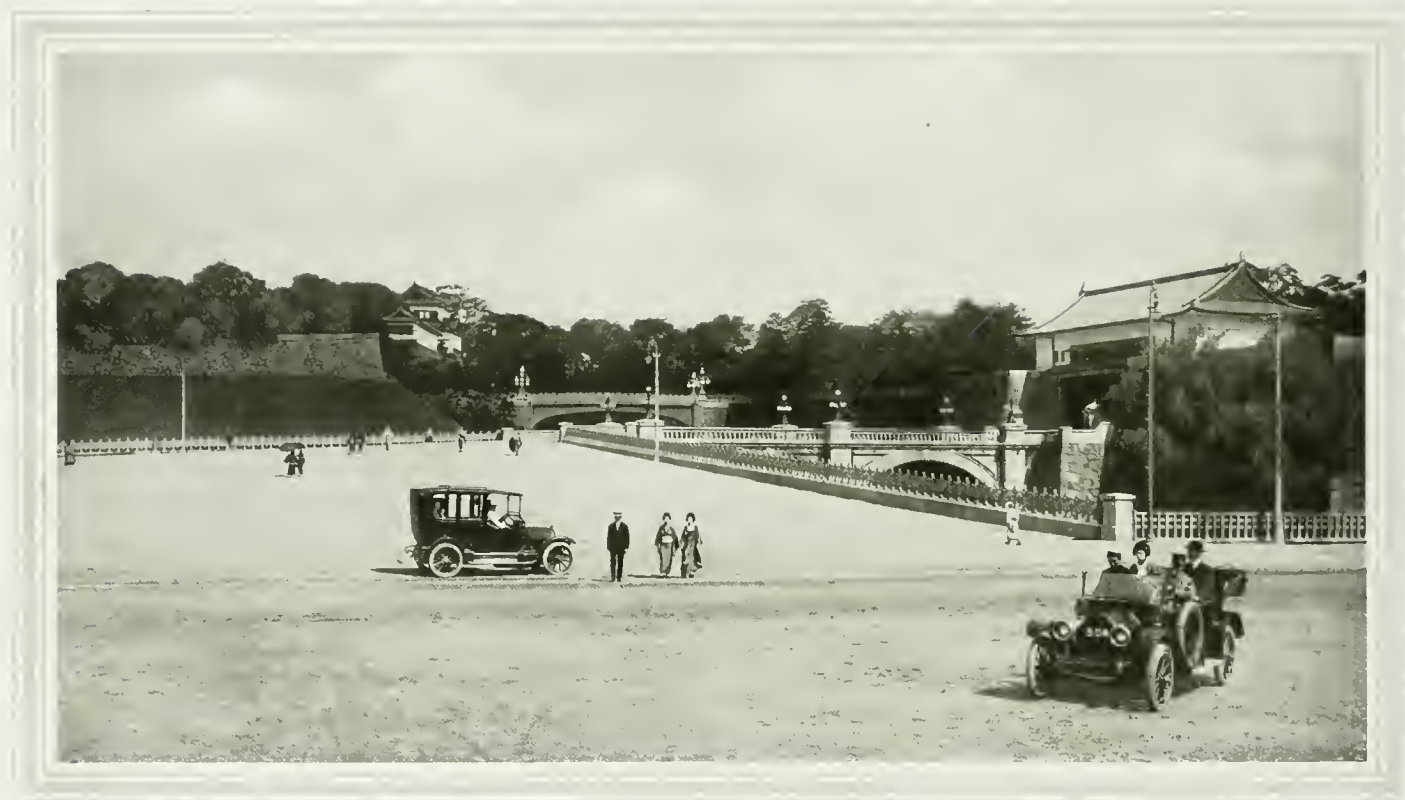
SAMUEL SAMUEL & CO., LTD., KOBÉ: A SECTION OF THE KOBÉ OFFICES—A SCENE IN THE
SAMPLE ROOM—PACKING DEPARTMENT IN ONE OF THE GODOWNS

Director at Yokohama is Mr. H. T. Hume, who came to Japan over ten years ago, after seven years in Rangoon, and succeeded to the management in 1915. Mr. Hume is Vice-Chairman of the Foreign Board of Trade, a member of the Naigai Club, and Vice-President of the Yokohama Country and Athletic Club, among other public or semi-public positions which he holds.

plied by Messrs. Cooper & Co. They are also agents for Japan for the famous distilling company, John Walker & Sons, Ltd.

Messrs. Cooper & Co. have an embroidery factory at Mishima-machi, Idzu, which employs from fifteen to twenty girls. The godowns in Yokohama are three in number, built of stone, two of two and one of three stories, giving a large storage capacity for the

and export trade of Japan, are Singleton, Benda & Co., Ltd., whose offices and godowns are at No. 96 Yamashita-cho, Yokohama. The foundations of this great concern were laid nearly fifty years ago when the business was originally that of M. Levy & Co., subsequently passing into the hands of Messrs. Singleton and Benda. This firm was incorporated in London as a limited liability



IMPERIAL PALACE, TOKYO

COOPER & CO.

THE growth, development, and extent of the present-day business interests of Messrs. Cooper & Co., No. 47, Yokohama, are remarkable in view of the comparatively short time the concern has been in existence. The business was founded in April, 1909, by Mr. A. E. Cooper, who is now principal partner resident in London. In 1912, when the present managing partner, Mr. F. W. R. Ward, joined the firm, it was incorporated under the laws of Japan as a Goshi Kaisha.

Messrs. Cooper & Co. are general importers and exporters, specialising in the export of silk, drawn work, and general Japanese manufactures, and importing sundry lines to meet local requirements. The firm is particularly well known in London and New York markets and undoubtedly handles a very large proportion of the silk trade with those two centres. They are associated with Messrs. J. A. Finn & Co. of New York, importers of fancy silks, whose needs are sup-

plied by Messrs. Cooper & Co. They are also agents for Japan for the famous distilling company, John Walker & Sons, Ltd. Messrs. Cooper & Co. have an embroidery factory at Mishima-machi, Idzu, which employs from fifteen to twenty girls. The godowns in Yokohama are three in number, built of stone, two of two and one of three stories, giving a large storage capacity for the

heavy stocks carried. Among the lines exported are silk piece goods, plain and fancy silk, handkerchiefs (plain and fancy), hemp braid, drawn work and embroideries, lace goods, kimonos (silk and cotton), cotton piece goods, boot laces, press studs, electrical fittings, incandescent gas lamps, gas fittings, and glassware. About seventy hands are employed in the various departments. Messrs. Cooper & Co. maintain a branch in New York, at 33 Union Square, where they are represented by Mr. W. L. Croker.

Mr. Ward, the Managing Partner, joined the firm in 1912, and succeeded to the management of the business upon the departure of Mr. Cooper for London the following year. He is an Englishman with sixteen years of business experience in Japan.

SINGLETON, BENDA & CO., LIMITED

PROMINENT among the leading houses of Yokohama, carrying on the extraordinarily varied business which constitutes the import

company about twenty years ago with a capital of £140,000. The London office is at 27 London Wall, and the directors of the company are Mr. C. Williamson Milne, Chairman, Messrs. C. Benda and J. F. Fitzpatrick, Managing Directors, and Mr. W. Bromley Taylor, Director.

Singleton, Benda & Co., Ltd., handle practically every line known to the Japanese trade, either in imports or exports. The range of their exports is too wide to be more than briefly mentioned in this article. They ship general fancy goods, antimony, lacquer, and porcelain ware of all kinds including articles of the most famous Japanese craftsmanship, such as Kutani tea sets, vases, figures; Bishiu sets, vases, figures, etc.; Aidzu tea pots, coffee and other services, Ishiguro and Riosai vases, match stands, and bowls; Banko ash trays, tea pots, and figures, and all classes of Satsuma ware. Basket ware of all kinds is another line, as also are paper goods, toys, umbrellas, etc. Carved



COOPER & CO., YOKOHAMA: THE FANCY SILKS DEPARTMENT—THE HEMP BRAID DEPARTMENT—SORTING AND PACKING IN THE HANDKERCHIEF DEPARTMENT—EXTERIOR VIEW OF OFFICES AND GODOWNS

wood work, including furniture, screens, panels, painted and plain, and knickknacks of all descriptions form another department, and in sundries ranging from leather suit cases down to pocket knives, the list is exceptionally long. Singleton, Benda & Co., Ltd., also buy for export, bronzes, ivory and walrus carvings, ivory and gold vases, lacquer ware, antiques, and curios. In the more regular trade lines they cover straw, chip, and hemp braids, silk piece goods, cotton piece goods and made-up articles of apparel, cotton crepes, linens, embroideries, and drawn thread work. The field of export is as wide as the lines are varied. An extensive business is done with the United Kingdom, the Continent of Europe, Australia, Canada, the United States, and South Africa, and Singleton, Benda & Co., Ltd., are represented by agents in practically every important centre where they transact business. The company does a large trade in Panama hats, and also has its own factories for the manufacture of shirts, collars, kimonos and such goods. Furthermore, practically all kinds of produce, such

as peas, beans, fish oil, menthol crystals and other commodities, are exported.

Singleton, Benda & Co., Ltd., are the Japanese agents for Peter Dawson & Co., the distillers. They were the first house in Japan to open up the bicycle trade and the importing of accessories and parts, and still do a considerable business in this direction, though to-day no bicycles are imported, the finished article being put together locally from parts and accessories brought in from other countries. In the representation of Turner Brothers belting the company has another important agency. Attached to the Yokohama offices of Singleton, Benda & Co., Ltd., are two spacious three-story godowns built of brick, and giving storage capacity for an enormous and highly valuable stock of goods. One godown is 123 by 72 feet and the second is 68 by 38 feet. In the various departments, such as silk piece goods, cottons, Panama hats, fancy goods, and gloves and hosiery, and in the offices, employment is found for a staff numbering over thirty. At Kobe, where the company has an important branch,

there are also two godowns. From that centre a large business is done in the export of cotton waste, carpets and rugs, matting and mats, bamboo and willow work, glassware, straw envelopes, brushes, etc.

The Manager for Japan is Mr. George W. Brockhurst, who has had twenty-six years of experience in the trade.

VARNUM ARNOULD & CO.

An extensive industry has been built up by the firm of Messrs. Varnum Arnould & Co., who are the pioneers and the leaders to-day in the box-making trade of Japan, in so far as high class, machine-made tea and rubber boxes are concerned. The origin of this industry goes back many years before the establishment of the present partnership.

It was Mr. R. M. Varnum who first commenced this industry in Yokohama and opened up what to-day constitutes a large export in the trade of Japan. He was himself a practical tea taster and while a member of the firm of Fraser, Farley & Varnum, finding that the cost of cooperage for the large



SINGLETON, BENDA & CO., LTD.: THE YOKOHAMA PREMISES — THE KOBÉ OFFICE

quantity of tea they were then handling was enormous, owing to the use of hand-made boxes, Mr. Varnum on going into the question decided that the boxes could be better and more economically made with modern machinery than by the then prevailing methods. Consequently machinery was imported from America and Messrs. Fraser, Farley & Varnum then started the original manufacture of machine-made boxes for their own use about 1883. The plant installed was at first only sufficient to supply the firm's own requirements, but later a trial shipment was made to Colombo. The result was entirely satisfactory and orders from Ceylon increased to such an extent that the firm extended the capacity of their mill. As the export trade expanded Messrs. Fraser, Farley & Varnum arranged to supply milling plants to the Japanese timber companies, and imported from Chicago the first modern saw mill that ever came to Japan. By an arrangement with the timber companies the firm sold the machinery on the hire-purchase system, having also the first call

on the output of the different mills. These arrangements continued after the old firm ceased to exist, owing to the deaths of two of the original partners. With Mr. H. M. Arnould, who had come to Japan at the end of the eighties, Mr. Varnum then formed the partnership of Varnum Arnould & Co., about sixteen years ago, and the energies of the new firm were concentrated entirely on the box-making business. Their factory, situated in the Settlement of Yokohama, was burnt down in October, 1909, and was not replaced, as the locality was unsuitable, but the firm arranged for the entire output of a factory in the outskirts of Yokohama. A similar arrangement exists with ten or a dozen factories throughout the country, situated in proximity to the timber districts, on the output of which Messrs. Varnum Arnould & Co. have first call. Boxes are made both for tea and rubber, the timber employed being $7/16$ inch or $1/2$ inch and of various sizes, according to requirements. The output handled by the firm is now 1,000,000 per annum, the boxes being exported to Ceylon,

India, the Straits Settlements and elsewhere, and for the purpose of export are packed in shooks.

Owing to the wise administration of the forestry laws of Japan there is no dearth of excellent timber, and no shortage seems possible with re-afforestation going on as fast as the forests are cut. The wood used in the manufacture of tea and rubber boxes is known locally as *moni*, though other suitable woods are available.

Messrs. Varnum Arnould & Co. are continually extending their export trade and are also in a position to ship all kinds of three-ply planking and three-ply boxes, with the usual fittings, to all parts of the world. The firm's address is No. 247-249, Yamashita-cho, Yokohama.

IWAI & CO., LIMITED

THE history of this important import and export company is given in full in the Osaka section of this volume. The business was founded in 1898 by Mr. Katsujiro Iwai, one of the originators of direct foreign trade from



VARNUM ARNOULD & CO., YOKOHAMA: MESSRS. VARNUM AND ARNOULD IN THEIR OFFICE —
THE PACKING GODOWN — THE BOX FACTORY



YOKOHAMA BRANCH OF IWAI & CO., LTD.

Osaka. A comparatively small capital was employed at the initiation of operations, but the business proved immediately successful, and from the head office at Osaka, it was extended in many directions, a large branch being opened at Yokohama, among other important trading centres. Conducted as a private enterprise for some years, the business was later on transformed into a limited liability company and its present capital is Yen 2,000,000 with reserves of Yen 925,000.

The Yokohama branch of Iwai & Co., Ltd., is under the management of Mr. Y. Araki, who is particularly well known throughout the Japanese and foreign business community of the port. An excellent business site at No. 180 Yamashita-cho contains the commodious four-story brick building and godowns. The business at the Yokohama branch naturally specialises in those lines which are best handled at this centre. They comprise mainly the export of silk goods of various

descriptions, cotton goods, silk and cotton manufactures, hat braids, natural produce, and other merchandise. These shipments go to Europe, America, Australia, India, the South Sea Islands, China and elsewhere. The Yokohama branch also handles a large import trade in hemp and similar raw materials required for manufacture in Japan. This branch was established in 1907, and has developed into a very valuable section of the business of Iwai & Co., Ltd. (See also page 680.)

KEANE & STROME, LIMITED

MESSRS. Keane & Strome, Ltd., No. 12, Water Street, Yokohama, are export and import merchants doing a very extensive business in all Japanese produce and merchandise, besides importing and distributing to a large extent. The business was originally established by the late Mr. C. J. Strome, in 1880, under the trade name of Strome & Co. In 1912 the business had grown to such an

extent that a limited liability company was formed and carried on as Strome & Co., Ltd., for two years, when it went into liquidation owing to the death of the founder, Mr. Strome. This liquidation, it may be stated, was merely to adjust family interests and the present managing director, Mr. O. Strome, became, and still is liquidator in that direction. The firm of Keane & Strome, a partnership, was formed by Messrs. W. L. Keane and Strome, and from January 1, 1915, carried on the business till the following year, when Mr. Keane retired and Mr. Strome incorporated the present company under Japanese law with a capital of Yen 50,000.00 fully paid up. Mr. Strome was appointed managing director, Messrs. Land & Cox of New York and Kobé as agents.

Keane & Strome, Ltd., specialise in silk manufactures of all kinds and hemp braids and produce, doing also an extensive business in all lines of export, such as pressed studs, boot laces, curios, and fancy goods. The company is a licensed exporter of tobacco from Japan, this commodity being a Government monopoly. Messrs. Keane & Strome, Ltd., are in an enviable position in this respect and they are able to sample and quote upon request. At the present time, largely due to the war, all markets are bare of tobacco stocks and the demand is general for the Japanese leaf, which has been favourably reported upon as suitable mostly for cigarettes and is being used largely for that purpose in Egypt, as also in London and New York. The company exports tobacco leaf baled. The main centres to which Keane & Strome, Ltd., export are England, Australia, the United States, and South America. In the hemp braid industry the company was one of the first exporters, beginning operations in 1906, and to-day it is one of the leading dealers in this product. The company maintains a factory which is particularly useful for experimenting on new ideas and for ascertaining costs. The godowns of the company have a floor space of 526 *tsubos* (or 3,156 square feet) in which employment is given to about fifty hands. The normal staff of the company is three Europeans and thirty-five Japanese. The firm are also agents for the well-known "Bon Ami" products.

Mr Strome, the Managing Director, has been in Japan since 1899. He was manager of the business in his father's time and having secured during this long experience a thorough knowledge of commercial conditions generally, he has been able to develop the interests of the company to a wide extent especially since he has had the responsible direction of its energies. Mr. Strome is connected with several public organisations, the firm being a member of the Foreign Board of Trade.



KEANE & STROME, LTD.: SILK PIECE GOODS DEPARTMENT—STRAWBRAID GODOWN—THE TOBACCO GODOWN

J. WITKOWSKI & CO., LIMITED

In the first rank of the foreign import and export houses in Japan is that of J. Witkowski & Co., Ltd., a business that was started over forty-five years ago. Originally the business was known as Marcus & Co., but later on it became J. Witkowski & Co., the partners being Messrs. Witkowski and Henri Blum. On the death of Mr. Witkowski, Mr. Blum took Messrs. Lee Meyer and L. Lazarus into partnership, and seven years ago the concern was turned into a private limited liability company under its present designation.

From the earliest days a large trade has been done by the house, and of recent years the expansion of business has been most marked. The company has a large number of first-class agencies, such as those of F. J. Fry & Son, Ltd., A. & F. Pears, Ltd., Peak, Frenan, Ltd., the Crown Perfumery Co., "D. O. M." Benedictine, Schwob Freres & Cie (watches), Borden's Condensed Milk Co., and the California Fruit Cannery Association. The Yokohama branch of J. Witkowski & Co., Ltd., handles the products of these well-known concerns, as well as others, and also

imports large quantities of diamonds from Amsterdam for the local jewellery trade. Other imported lines are chemicals and drugs, California and French wines, etc., as well as general merchandise. Exports from Yokohama comprise principally silk goods, drawn work and embroidery, gloves, produce, including mineral oils, metal manufactures, toys, fancy goods and general lines of all descriptions. The company does a particularly large export business in knitted and fabric gloves, taking the entire output of two or three factories. There are six godowns, spread over a wide area of the most central portion of the foreign business section of Yokohama, and these are under the control of the different departments into which the business of J. Witkowski & Co., Ltd., has been organised.

Mr. Blum, who is of French nationality, has charge of the New York office of the company. Mr. Lazarus (British) manages the Kobe branch, and Mr. Meyer, who is an American citizen, is the Manager of the Yokohama branch. Both Messrs. Meyer and Lazarus have been with the house for over

twenty years, and have an intimate knowledge of the trade in Japan, and of the requirements of foreign markets. The Yokohama branch office is located at No. 93 Yamashita-cho. (See page 670.)

S. ISAACS & COMPANY

Prominent among the import and export firms of Yokohama is that of S. Isaacs & Co., controlled and managed by Mr. S. Isaacs. The firm's offices and godowns are at No. 200. Originally the business was that of R. Isaacs and Brother, having been founded in 1868 by the father and uncle of the present proprietor. Mr. S. Isaacs joined his father in the business in 1891, and when the former retired, Mr. Isaacs started under the present trade name on his own account in 1903. To-day the business is in a highly flourishing condition, and gives every evidence of rapid expansion at no distant date. It is directed with energy and sound judgment based on an experience of over thirty years of trading in Japan. A general import and export business is done in practically all lines, with special attention paid to silk and other products in the raw or



THE STAFF AND WORK PEOPLE OF J. WITKOWSKI & CO., LTD., YOKOHAMA BRANCH

manufactured stages. S. Isaacs & Co. are probably among the largest shippers of Japanese produce such as peas, beans, and similar agricultural crops, and their activities also embrace the operation of factories for the manufacture of hosiery of all kinds, and gloves. The hosiery factory is one of the largest of its kind, and its goods are well known in New York and London. Among the imports by the firm are iron, piece goods, large quantities of leather, chemicals, and general merchandise. Exports comprise the products of the factories under the direction of the firm, agricultural products, silk of all kinds, silk manufactures such as ties, handkerchiefs, etc., drugs and chemicals, curios, and general lines. Several large godowns are maintained for the storage or finishing of products for export. Every department of the varied business of the firm is in charge of a European expert. Messrs. S. Isaacs & Co. are the general agents in Japan for the Palatine Insurance Company.

Mr. Isaacs is one of the best known sportsmen in Japan. He is a keen follower of the turf, and undoubtedly the interest he has shown in the King of Sports has done a great deal to bring it to the position it now occupies. He was for some years Chairman of the Nippon Race Club, and is still a committeeman of that body. As an owner he has had a full measure of success. His mare Virginia holds the very fine record of 23 starts, 15 wins, and 6 seconds. She raced through three seasons, including the Spring

of 1915, and in addition to winning the Emperor's Cup, scored five championships, and three Australian championships. St. Augustine, another of Mr. Isaacs's string, by Ebor from Smart, holds the mile record for Japan in 1 m. 42²/₅ secs. Mr. Isaacs was the first President of the Yokohama Country and Athletic Club, a position he has held for several years. He is Chairman of the Council of the Society for the Prevention of Cruelty to Animals, and President of the Columbia Society.

THE HOUSE OF MOGI, BENTEN-DORI, YOKOHAMA

A STUDY of the commerce and industry of Japan reveals few more substantial and well credited concerns than the House of Mogi of Yokohama, which is an important factor in the commerce of Japan, and also has very wide-spread foreign connections. The business goes back originally to the first days of the opening of Yokohama, when Mr. Sobei Mogi, grandfather of the present principal of the house, started in trade, and numbered the original pioneers of the port among his customers and friends. In those times the business was mainly confined to transactions in raw silk, in the name of Nozawayama. However, with the development of trade generally, the operations of this house were extended to include many other lines, and a large import and export business was built up. In 1881 the old name was changed to Mogi. Several other changes

took place as the business grew, and in 1913 the title of Mogi & Company was adopted. Recently, the business of the house became so extensive that the name of Mogi & Co. was no longer adequate to cover the sphere of operations, and in June, 1917, the whole system was reorganized and the business was divided up among various departments. The House of Mogi now is composed of Mogi Gomei Kaisha (with the old title of Mogi & Co. abroad), Mogi Bank, Mogi Mining Department, Mogi Raw Silk Department, Mogi Real Estate Department, Mogi Dry-Goods Department, and Mogi Commercial and Industrial Department.

Mogi & Co. has never publicly announced its financial condition, but when it is considered that the annual turnover is in excess of Yen 150,000,000, it may be realised what a vast concern it is, and how large is its share in the trade and commerce of the country.

Mogi & Co. carries on raw silk, which is its old original business, as well as general import and export. As importers and exporters, Mogi & Co. are among the most influential people in Japan. There is hardly a line of goods that they do not handle, and they import from, or export to, practically every country in the world. Among the principal imports are cotton, wool and woollen goods, iron and steel, chemicals, paper, shipbuilding materials, timber, cereals, machinery, etc. Exports comprise principally raw silk, habutai, cotton and silk goods, ores and minerals, various produce, chemicals, etc. They have already established their own branches in Shanghai, Tientsin, Hankow, London, Lyons, New York, Bombay, and Sydney, besides their offices in Tokyo and Osaka.

The Mogi Bank does a general banking business. It has a separate capital of Yen 1,000,000 and deposits of Yen 22,000,000. The bank is the joint property of Messrs. Sobei Mogi and Taijiro Mogi. In addition to the head office, it has branches at Tokyo and Takasaki, and two new branches are now being contemplated, to be opened at Kyoto and Osaka.

The Mogi Mining Department controls various mines in which the house is interested, and also two refineries where crude copper and zinc ores are treated. It employs a technical and clerical staff of 150, not counting the workmen. The department has its own offices at No. 13 Akashi-cho, Tsukiji, Kyobashi-ku, Tokyo.

The Mogi Raw Silk Department directs the operations of several factories which have an annual output of 14,000 bales. The factories are the Sanryusha, in Okazaki, Mikawa Province, the Asahisha, Gumma



S. ISAACS & CO., YOKOHAMA: VIEW IN SILK GODOWN — INTERIOR OF CURIOS GODOWN
— EXTERIOR VIEW OF PREMISES



MOGI & COMPANY, YOKOHAMA: VIEW OF THE HANDSOME NEW PREMISES—INTERIOR OF THE MOGI BANK

Prefecture, and the Shinshosha, in Gifu Prefecture. These factories employ a staff of 200 and about 7,000 women workers. The quality of the raw silk is of the highest grade in Japan and the system and equipment are the most modern.

The Mogi Dry-Goods Department is an old "Nozawaya," well known among tourists visiting Yokohama. There are two stores in Yokohama, and the employees number 120. Small as it may appear, yet this is the cradle business out of which Mr. Mogi's forefather started.

The Mogi Commercial and Industrial Department controls a vast number of interests in which the house has direct or indirect investments.

Naturally to control such a widely diversified business, there must be a central direct-orate and it is known as the Mogi Somubu, or the Mogi General Control Department, which undertakes the whole superintendence and financial control of the various interests.

The head office is situated at No. 30 Benten-dori, Yokohama City. The principal officers are: Mr. S. Mogi, President; Messrs.

J. Takahashi, T. Nagayo, and S. Yamaguchi, Directors. The various departments of the Mogi business employ all together staffs of about one thousand.

DAVIS, SUMMERS & CO., YOKOHAMA

THE business of this well known firm was originally founded in Kobé in 1912, under the name of Summers & Co., and became known under its present name in the following year, when the head office was established in Yokohama. From the point of view of business experience on the part of its founders and partners, it would have been indeed surprising had not success been almost immediately achieved by the firm. The partners are Messrs. E. C. Davis, E. H. Summers, and H. V. Summers. Mr. Davis had been Managing Director of Samuel Samuel & Co., Ltd., from 1902 to 1912, having been with that company for seventeen years from the time he first entered its service in London. Mr. H. V. Summers had also been with the same company for fifteen years as Chief Shipping Clerk, working under the direction of Mr. Davis. His brother, Mr.

E. H. Summers, had been manager for various firms in Kobé for eighteen years, up to the time he left Messrs. A. Cameron & Co. to enter business on his own account with the firm of Summers & Co. Quite apart from the lengthy experience and wide knowledge of conditions in Japan which these records of business suggest, the Messrs. Summers are fluent speakers of Japanese, and have established the most intimate relations with Japanese business men, especially in shipping circles.

The development of the operations of Davis, Summers & Co. has been very rapid, and in several directions the firm is to-day doing a larger business than any other foreign concern. This is particularly so in ship chartering, which is under the management of Mr. H. V. Summers. Details of the firm's operations in this department of commerce will be found in the notice of Davis, Summers & Co., Kobé Branch, which follows. The Yokohama office is mainly concerned with the export trade. Davis, Summers & Co. deal only in export lines. Apart from a wide range of general merchandise, manufactured



DAVIS, SUMMERS & CO., YOKOHAMA: INTERIOR OF ONE OF THE GODOWNS—THE OFFICE PREMISES



THE MUNICIPAL OFFICES, YOKOHAMA

goods of all kinds, curios, silks, etc., the firm has made a speciality of Japanese wallpaper, of which they export possibly ninety per cent of the entire shipments from Japan. They also handle grass cloth, and are the only exporters of "Orientine," which is a highly refined Fuller's earth used for cleansing edible oils. This particular product of Japan has experienced a phenomenal rise in values. At one time it was sold at £5 per ton, but recent quotations have gone over £30 per ton. The firm manufactures shirts, pyjamas, underwear, robes, garments, etc. These and other lines mentioned are shipped mainly to the United States, though some portion goes to Canada and elsewhere. The Yokohama head office and the extensive godowns of the firm are situated at No. 208 Yamashita-cho.

Mr. Davis, who has charge of the firm's interests at Yokohama, has spent twenty-one years in Japan, and is a prominent member of the foreign community, being associated with a number of foreign sporting and semi-public bodies. He is Chairman of the Executive Committee of the Nippon Race Club, and has been associated with the sport of horse-racing for twenty years or more. He was for six years President of the Amateur Dramatic Club, Chairman of the Foreign Board of Trade for two years, and was also, for a time, Consul for Peru.

DAVIS, SUMMERS & CO., KOBÉ

THE Kobé branch of Messrs. Davis, Summers & Co. was first established in 1912 and was for some time the head office of the firm, until the extension of the business to Yokohama. Messrs. E. H. and H. V. Summers are the resident partners, and have

under their direction the shipping interests of the firm, and the handling of special lines for which Kobé is noted. The firm does an extensive export business in all classes of goods, their specialties being: floor coverings, comprising cotton rugs and carpets, grass mats and carpets, jute rugs, mattings, woollen rugs and similar articles; cotton and silk goods of all kinds; enamel ware; glassware; chip, hemp, and straw braids; glass bottles; shell, bone, and metal buttons; all classes of agricultural products, cereals and manufactures, chemicals, matches, etc.

The Shipping Department, under the direction of Mr. H. V. Summers, has been a remarkably successful feature of the business, largely owing to the close relations established with Japanese concerns. The firm acts as brokers for the sale and charter of steamers. A large number of Japanese ships have been sold to the Allied Governments and private companies, and many charters have been arranged, not only with foreigners, but with the Japanese people. Messrs. Davis, Summers & Co. represent the Kishimoto Kisen Kaisha of Osaka as Foreign Agents. They are also agents for the London & Lancashire Fire Insurance Co. and the Scottish Union and National Insurance Co. of London and Edinburgh. The Kobé office and godowns are at No. 62 Naniwa-machi. Mr. H. V. Summers is the Consul for Sweden at Kobé.

ABE KOBEL COMPANY

THE enterprises in which Mr. Kobei Abe and his family connections are interested are so numerous, so varied, and so important,

that every justification exists for describing Mr. Abe as the foremost business man in the Yokohama district, and his firm as one of the most influential in the whole of Japan. Mr. Abe has been closely associated with trade and commerce in Yokohama since he started his business in 1873. In those early days he established a reputation for progress and enterprise, and with the lapse of time the firm has grown out of all recognition.

It is not easy to describe the entire business operations of the Abe Kobei Company, because they embrace so many distinct branches of trade, industry, and commerce. From the head office at Yokohama the firm handles a general import and export business, covering practically every line. The principal items of trade are sugar, flour, wheat, bran, rice, rice bran, beans, peas, hemp, cotton, cotton yarn, superphosphates, sulphate of ammonia, sulphuric ash, jute, Hessian cloth, gunny bags, tallow, bean cake, hemp seed, rape seed and rape seed cake, ground nuts cake and every kind of fertilizer, rubber goods, wire rope, electric apparatus and machinery. Branches of the business are established at Tokyo, Osaka, Nagoya, Kobé, Shimonoseki, Nagasaki, Naha, Taichu, Takao, Shanghai, Tientsin, Hankow, Tsingtau, Dairen, Tsinan, Shashi, Manila, Calcutta, and New York, with agencies and connections all over the world. The trade mark of "ABK" in a diamond is as well known abroad as the firm's trade mark for Japan is famous throughout the Empire.

Mr. Abe has adopted the happy idea of making his most trusted employees co-partners with him in the business. The manager of each branch office is appointed with his sons, adopted sons, or grandsons, as partners, so that the business is being carried on most faithfully and energetically with family ties binding all the principals in a common interest. The total number of employees in the head office and all branches is 760, so it may be seen how substantially the firm's operations utilise labour. The firm is the selling agent for many important manufacturing companies, handling the entire output of certain factories, and transacting a volume of general business of an immense annual value. The General Manager is Mr. Y. Aotani.

What services Mr. Abe has rendered to the development of the commerce of Japan may be seen from the statement of his main activities, outside the direction of his own private business. His firm stands third among the many great and famous houses of Japan, as a supporter of other enterprises. Abe Kobei Company are large shareholders in different concerns, and in this respect they rank first in Kanagawa Prefecture,



THE OSAKA BRANCH OF ABE KOBEI — THE HEAD OFFICE AT YOKOHAMA

which embraces the great trading centre of Yokohama. Mr. Abe personally is connected with the Second Bank, Ltd., the Yokohama Fertilizer Manufacturing Co., Ltd., the Land and Sea Enterprise Co., Ltd., of Taiwan, the Iwaki Cement Co., Ltd., the Yensuiko Sugar and Development Co., Ltd., Japan and China Spinning Co., Ltd., the Japan Flour Milling Co., Ltd., Japan-Taiwan Tea Co., Ltd., Japan Steel Pipe Co., Ltd., Tsurumi Land Co., Ltd., Daian Life Insurance Co., Ltd., Tainan Sugar Manufacturing Co., Ltd., Manchuria Flour Milling Co., Ltd., Omura-wan Pearl Co., Ltd., Oki-Dai Development and Sugar Co., Ltd., Japan Crystal Sugar Co., Ltd., Kagi Electric Light Co., Ltd., Imperial Sugar Manufacturing Co., Ltd., and the Japan Delicious Fermentation Co., Ltd.

Naturally such a successful business career as Mr. Abe has had has made him a wealthy man, but it is claimed that he is a liberal investor and is always ready to support any new enterprise that will add to the wealth of Japan. He is the largest taxpayer in Kanagawa Prefecture. Mr. Abe has held a number of public and semi-public positions. He is a member of the Standing Committee of the Yokohama Chamber of Commerce, and has been President of the Sugar Trading Association since it was established in 1874.

SUZUKI & CO.

ONE of the largest commercial houses in Japan is Suzuki & Co., a firm that is known all over the world, through its widely scattered branch offices, and the great extent of its foreign trade. The firm is a remarkably well organised concern, and through its different departments it transacts business in practically every line of trade and commerce, imports and exports taking a foremost place, while such enterprises as camphor and menthol refineries, rice mills, chemical works, coal mines, and distilleries are also conducted. Messrs. Suzuki & Co. are the managers for a number of industrial concerns, and also act as selling agents for many others, the full list of these agencies being given in the Kōbe section of this publication. (See page 661.) Branches are established throughout Japan, and one of the most important is at No. 73 Hon-cho, Gochoine, Yokohama.

At the Yokohama branch the firm handles a large variety of imports and exports, particularly those which are germane to the port and district. Imports comprise such lines as sugar, rice, wheat, flour, cotton, wool, fertilizers, iron, steel and shipbuilding materials, machinery, metals, ores, timber, chemicals, etc. The principal exports are brown and polished rice, beans, peas, and

other agricultural produce, potato starch, vegetable wax, isinglass, rape and peanut oil, bean oil, copper, antimony and other metals, sulphur, superphosphates, cement and other Japanese products and manufactures. An extensive business is transacted and the branch worthily maintains the high reputation which Messrs. Suzuki & Co. have established.

SHIBAKAWA & CO.

THIS firm has been identified with the import and export trade of Japan from the very earliest days of the opening of the ports to foreign trade, the business originally having been established by the late Mr. Shibakawa as far back as 1866. From its inception the business was prosperous and many important connections were formed in foreign countries. A reorganisation took place in 1903 when the business was turned into a limited partnership, with the head office at No. 10, Koraibashi, 3-chome, Osaka. From that stage the development has been very rapid, branch after branch being inaugurated to cope with the growing business. In 1905 a branch office was opened at Tokyo, and this was followed by branches at Kōbe and Yokohama. So far as foreign business is concerned the firm opened a branch office at Hamburg, Germany, in 1911, but on the outbreak of the war this was transferred to London, the office there being located at No. 110, Fenchurch Street, from where all the business in the United Kingdom and on the Continent is transacted.

As exporters, Messrs. Shibakawa and Co. are principally interested in woollen and

cotton goods, linen goods, habutai and other silk goods, hosiery, yarns, oils, buttons, minerals, agricultural and marine products, as well as all descriptions of manufactured articles, curios, etc. The company has very close connections with many of the leading cotton and woollen factories in Japan, such as the Osaka Woollen Manufacturing Co., the Nippon Woollen Manufacturing Co., the Tokyo Woollen Manufacturing Co., the Tokyo Woollen Cloth Manufacturing Co., the Tokyo Weaving Co., the Imperial Hemp Manufacturing Co., the Nippon Worsted Spinning Co. and many others. Imported lines handled in large quantities by Shibakawa & Co. comprise woollen and cotton goods, yarns, wool tops, metals, paper, paper pulp, chemicals, drugs, and machinery. The bulk of the export business is transacted from the Yokohama and Kōbe offices, while the Osaka office looks after imports. The Yokohama branch is located at No. 202 Yamashita-cho, and is under the management of Mr. T. Tono. Mr. Eisuke Shibakawa is the President of the company.

THE YOKOHAMA NURSERY COMPANY, LIMITED

A NEVER-FAILING source of delight to the visitor to Japan who is also a lover of Nature, is the national passion for trees, shrubs, and flowers, and the joy of cultivating them. The Japanese are unquestionably wonderful gardeners, and there is hardly a visitor who does not wish to take away with him some specimens of the flora of the country. This desire has been recognised by the



YOKOHAMA BRANCH OFFICE OF SUZUKI & CO.

Yokohama Nursery Company, Limited, which has made it possible and practicable for all classes of plants and shrubs and the famous dwarf trees of Japan to be exported to all parts of the world. It is almost unnecessary to say that the fame of this enterprise has spread abroad wherever the products of its gardens and nurseries have been exported, and the fact that so many specimens of Japanese floriculture and arboriculture are to be found in Europe and America, as well as in Australia, is largely due to the fact that the export of such has been turned into almost a science by the Yokohama Nursery Company, Limited. The company is the oldest and largest organisation of its kind in the East. The original founders were the late Messrs. U. Suzuki, M. Yamaguchi, A. Iijima, and S. Suda, of the former Gardeners' Association, which was reorganised into a limited liability company and incorporated in 1890 under the present title. The existing Board of Directors comprises Messrs. H. Suzuki, President; S. Tokuda, G. Tanabe, R. Yamaguchi, and S. Iida, Manager. All these gentlemen are well known in floricultural circles throughout Japan, and their expert knowledge of conditions abroad, and of the requirements for the export of the choicest specimens of Japanese plants, seeds, bulbs, etc., is recognised by scientific gardeners all over the world. The company has made a specialty of the business. It is fully equipped for collecting varied examples of horticultural and agricultural products from extensive territories of wide latitudinal range, and topographical and climatic conditions. A



YOKOHAMA PREMISES OF SHIBAKAWA & CO.

lengthy experience, and continued correspondence with foreign customers, have made the company fully acquainted with all the intricacies of shipment and seasons when acclimatisation can be expected to take place with the best results. From its extensive nurseries and beautiful gardens, to which visitors to Japan are always cordially invited, the company annually despatches huge numbers of plants, seeds, and shrubs, the packing and shipment being conducted under the most approved methods. Apart from the export of the items mentioned the company carries on the business of land-

scape garden architects; florists and general horticulturists; growers, exporters, and importers of lily bulbs, garden, forest, and agricultural seeds, nursery stocks, orchids, porcelain pots, bamboo stakes, stone lanterns, horticultural sundries, botanical drugs, grains, etc. Since its foundation the company has grown in a remarkable manner, and is well represented abroad, having branch offices in the Woolworth Building, New York, at Craven House, Kingsway, London, and at Vladivostock. The Yokohama address is P. O. Box No. 72. The main nursery is at Nakamura, Yokohama. Branches are also maintained at Otaru and Tokyo. The experimental nursery ground is at Nakayama, near Kanagawa, and the iris and peony garden is at Kamata, half-way between Yokohama and Tokyo. It is interesting to note that the company has done a great service to Japan by advertising the products of the land in foreign countries. It is always well represented at international expositions and has received, among other honours, a diploma from the Japan-British Exposition of London, 1910; silver cups from the Royal Horticultural Society, London, 1912, and grand prize, diploma of honour, six gold medals, and five silver medals from the Panama-Pacific Exposition, 1915. A valuable and highly interesting catalogue is issued every year, which contains a mass of useful information regarding Japanese plants and flowers, and also embodies a simple code for telegraphic orders. This catalogue is widely distributed abroad and may be had on application. The whole enterprise is a tribute to Japanese business methods, and of intense interest to foreigners.



WINDING HEMP BRAID INTO BUNDLES FOR EXPORT



YOKOHAMA NURSERY COMPANY, LTD.: SCENE IN THE PACKING DEPARTMENT SHOWING THE GRADING OF LILY BULBS—PLANTATION OF LILIUM SPECIOSUM RUBRAM—IRIS GARDEN AT KAMATA—DWARF PINE TREE—PEONIA MOUTAN—SPECIMEN DWARF WISTARIA TREE—AN ARBOUR IN THE GARDEN—THE MAIN OFFICE IN YOKOHAMA

JAPAN IMPORT AND EXPORT COMMISSION COMPANY

This business was established in Japan some twenty-five years ago by Mr. B. Guggenheim of New York. It comprises a general import and export agency, business being transacted directly, or for others on commission. The firm also manufactures several lines, notably brushes, in Osaka, and porcelains, at Nagoya. The works at the latter city have a large output of the highest class of porcelain ware. Main lines of export are manufactured silks, toys, brushes, porcelain and fancy goods, as well as general produce and manufactures. The head office

is at No. 63, Yokohama, where there are also godowns for the classification, packing, and shipping of all classes of exports. The office and works at Nagoya cover 2,000 *tsubo*. There is a branch at Kobé. The partners of the firm are Messrs. B. Guggenheim of New York, and F. P. Solomon, resident in Japan, both of whom have had a lengthy and valuable experience of the requirements of trade between Japan and foreign countries.

INTERNATIONAL TRADING CORPORATION, LIMITED

A VIGOROUS development has been witness of the business activities of the International

Trading Corporation, Ltd., although this company only came into existence on July 1, 1917. From the outset of its operations the company adopted the wise policy of being strongly represented in every important centre of foreign trade, and to this end branches were established at Kobé, Yokohama, and Tokyo, the head office being located in Osaka. At each of these respective centres the International Trading Corporation, Ltd., has concentrated on the special lines for which that district is noted. At the Yokohama Branch, which is located at No. 225 Yamashita-cho, the principal lines of export are raw silk, silk piece goods, drawn thread work, embroideries and similar textile products, chemicals and drugs, hemp braids, lumber, metal goods of all kinds, paper, produce, sulphur, superphosphates, tinned goods, wires and cables, a large trade being done with the United States, Canada, the South Seas, China, and India. In imports the company handles such lines as chemicals, drugs, dyes and colours, lumber, machinery and tools, motor cars, metals and metal goods of all descriptions, nitrate of soda and other fertilizers, paper mill supplies, paper and pulp, wool, cotton, and linen goods.

The capital of the company is Yen 2,000,000. Mr. Matsuo Kita is the President and Mr. Kintaro Sugiyama is the Managing Director.

G. KUMAZAWA & CO.

FROM the priesthood to be proprietor of one of the most successful businesses in Japan, is the story of Mr. G. Kumazawa, principal of the well-known firm which bears his name. The history of Messrs. G. Kumazawa & Co. is indeed interesting. The founder of the business was originally a priest in the Zen sect of Buddhism, a sect noted for the high degree of culture and the virtues of its followers. Mr. Kumazawa was not yet twenty years of age when he took a keen interest in the efforts being made to establish Japan's trade with foreign countries. This was then in its infancy and Mr. Kumazawa, regretting the slow development, decided to give up the priesthood and devote himself to the task of promoting foreign trade. He gave the matter minute and thorough investigation. Then getting together all the capital he could, which was hardly Yen 1,000, he launched out in business as an importer and exporter, making Yokohama his headquarters. This was in the year 1886. At that time trade with Russia was very small, compared with the trade between Japan and Great Britain and the United States. Mr. Kumazawa saw an opportunity in this direction, and established close relations with merchants in Russia. The business was developed very well, when



YOKOHAMA PREMISES OF THE JAPAN IMPORT AND EXPORT COMMISSION COMPANY

disaster came in the form of the Russo-Japanese War. A large number of merchants then went bankrupt, and included among them was Mr. Kumazawa, who was rendered penniless. However, he started again and by honesty and sound methods in his business management he soon had laid the foundations of permanent prosperity. The opening of the Kobé branch led to a strong trade with China and the South Sea Islands, and the Russian business was brought up to its present vigour by the branches at Harbin and Moscow. More recently, Mr. Kumazawa despatched his representatives to Lima, Peru, to open up trade with South America generally, and a partnership was entered into with a large cotton cloth dealer in New York, a movement that bids fair to make Mr. Kumazawa a prominent figure in that trade.

The main business of Messrs. G. Kumazawa & Co. is export and import of different lines connected with the textile industries generally. The firm is engaged in the manufacture and sale of silk and cotton piece goods, several factories being controlled for this purpose. In addition the firm handles a

large range of general manufactures and products, the principal exports being silk fabrics, cotton fabrics, silk and cotton manufactures, curios and other articles, which are shipped to Russia, England, North and South America, Australia, the South Sea Islands, India, and China. Various kinds of raw materials are imported from Russia and America. Messrs. G. Kumazawa & Co. have extensive offices and godowns at 273 Yamashita-cho, Yokohama. The offices occupy a two-story brick building covering an area of 96 *tsubo*, while the godowns are four-storied brick premises of modern construction with an area of 634 *tsubo*. Branches are established at Kobé, Harbin, and Moscow. There are 143 employees, and the salaries and wages total about 175,000 yen per annum. Mr. Kumazawa is the principal of the business, and he is fortunate in having under his direction a highly capable and loyal staff. The relation between the proprietor and staff is that of a father and sons, and a keen *esprit de corps* prevails throughout the personnel. From the original Yen 1,000, with which this important business was founded, the capital

has now grown to Yen 1,000,000, and some idea of the volume of business transacted may be gained from the statement that the value of the trade done reaches over Yen 10,000,000 per annum.

AMERICAN EXPRESS COMPANY

In the course of the consistent development and expansion of its foreign service, the American Express Company has recently established a branch in Yokohama at 75-A, Yamashita-cho (Main Street). The average American is familiar with this company in connection with the express business which it operates in the United States and Canada, where its service extends over 57,000 miles of railways, with over 10,000 agencies in the United States and Canada. In the foreign fields the company maintains some twenty-three offices in Europe, and is established in Buenos Ayres, Manila, and Hong Kong, and will shortly be at Shanghai. These offices are established with salaried employees engaged exclusively in the company's service, transacting its business under uniform and systematic methods attained after many



INTERNATIONAL TRADING CORPORATION, LTD.: BALING GOODS IN THE SILK-SHIPPING GODOWN —
YOKOHAMA OFFICES AND GODOWNS—INTERIOR OF SILK GODOWN

years of successful experience. They act as General Forwarding Agents for both small and heavy shipments, in connection with express or freight service to and from various parts of the world, and act as General Foreign Agents of the New York Central Lines and Merchants Despatch for freight traffic.

In addition, the company carries on the various operations connected with foreign exchange, such as arranging for commercial credits, sale and purchase of drafts, cheques, T. Ts, etc. The well-known Travellers' Cheque, originated by the American Express Co., is quite familiar to travellers as a safe and convenient means of carrying funds in negotiable form in all countries.

THE SHIMIDZU TRADING CO.

MR. T. S. SHIMIDZU has built up an extensive import and export trade within the past ten or eleven years. He started in business on his own account in 1906 with a small capital of Yen 20,000, and by close attention to the requirements of foreign trade formed valuable connections abroad, and increased his turnover very largely, finally forming his business into the Shimidzu Trading Co., with the present capital of Yen 50,000. The firm has its head office

and godowns at No. 24-E, Yamashita-cho, Yokohama, and there is a branch at Sakaye-Machi, 3-chome, Kobé. The buildings are of stone and are modern in construction. Among the principal imports handled by the Shimidzu Trading Co. are iron and steel, wool tops, woollen cloth, machinery, and chemicals. These lines are imported mainly from Great Britain and the United States. As exporters, the Shimidzu Trading Co. handles beans, peas, rice, dried provisions, natural products, electrical goods, stationery, woollen yarns and cloth, silk and silk goods, toys, cotton yarns, glassware, rubber goods, hosiery, leather goods, shoe laces, cotton goods, chemicals, and almost all lines of merchandise and manufactured articles and produce of Japan. An extensive trade is now being done with the United States, Great Britain, India, France, Russia, Egypt, South Africa, Italy, Canada, and elsewhere. Messrs. Hongo & Co., Nassau Street, New York, are the agents in the United States for the Shimidzu Trading Co.

SOUTHERN PACIFIC TRADING CO., LIMITED

A RAPID development has taken place in the export trade between Japan and the

South Seas, particularly since the outbreak of the war. Much of this expansion is due to the activities of such companies as the Southern Pacific Trading Co., Ltd., which was founded some time ago by a number of prominent Yokohama business men, included among whom were Messrs. S. Koro, H. Ogawa, W. Watanabe, R. Okano, N. Yoshinaga, M. Mayeda, and A. Matsuoka. The capital of this company is Yen 1,000,000, and the head office is at No. 22 Honcho, Nichome, Yokohama.

The Southern Pacific Trading Co., Ltd., has its own vessels, and is now importing large quantities of various raw products, principal among which is copra, from the many islands in the Pacific. In return, the company exports a full line of general merchandise and Japanese specialties, the largest trade being done in provisions, cloth, earthenware, and beer. Another department is the agency for shipping and freight between Japan and the islands. Branches have been established at Tokyo, Suva (Fiji Islands), Menado (in the Celebes), and Petta, at Sangir Island.

The President of the Southern Pacific Trading Co., Ltd., is Mr. S. Koro. The Managing Director is Mr. H. Ogawa, and



HEAD OFFICE AND GODOWNS OF G. KUMAZAWA & CO.



M. ONO & CO., LTD.: PREPARING GOODS FOR EXPORT — VIEW IN THE SILK DEPARTMENT — BALING GOODS FOR EXPORT — THE PREMISES OCCUPIED BY THE GENERAL TRADING DEPARTMENT

the other Directors are Messrs. W. Watanabe, R. Okano, and N. Yoshinaga.

ADET, CAMPREDON & CO.

THE development of the foreign wine and spirit trade in Japan is not the least of the changes which have taken place in this country which is so quick to adjust its life to outside influences. In other sections of this work we have referred to the growth of the great brewing interests, and the acquisition of a taste for the best foreign wines and spirits is a further indication of the rapidity with which the Japanese have assimilated Western ideas and manners, even in their private lives. Messrs. Adet, Campredon & Co. are among the most widely known, and oldest of the foreign wine and spirit merchants, transacting an ever-increasing volume of trade, and enjoying a high reputation in the foreign communities, and among the Japanese. This business was established in 1887 by the late Messrs. Gustave Adet and Gustave Campredon, under the firm name and style of Adet & Campredon. They were probably the first to install proper wine cellars, and to establish local facilities for the maturing and bottling of liquors imported in bulk. As the result of thirty years' experience in the local market, and with the advantages which their enterprise have given them, the firm has established itself very strongly. An extensive business is done with Japanese dealers, whose confidence Messrs. Adet, Campredon & Co. enjoy. The various hotels are regularly visited, so that the different brands controlled by the

firm are always to be found in every part of Japan and Formosa, as well as on the Imperial Government Railway dining cars. Adjoining the office, which is at No. 95, Yamashita-cho, Yokohama, are the vast cellars and godowns in which are stored many old and rare vintages of wines, etc. The bottling department is one of the best equipped and regulated in Japan.

The name of the firm was changed in 1897 to Adet, Campredon & Co., when Mr. Emile Adet was admitted to partnership. The founders have died, but the business remains in the hands of relatives, the present partners being Messrs. Charles Henry Moss (Managing Partner) and M. Campredon.

The firm represents for Japan the following concerns: Adet, Seward & Co., Bordeaux (claret); Associated Vineyard Cultivators' Association (Beehive Brandy); John Dewar & Sons, Ltd., Perth, Scotland (whisky); P. de Marceilly Frères, Beaune (burgundy); Alfred de Montebello et Cie, Chateau de Mareuil-sur-Ay (champagne); Charles Day & Co., London (gins); Diez Hermanos, Jerez de la Frontera (sherry); Guimaraens y Cia, Oporto and Silva and Cosens Oporto (ports); Rutherford, Brown and Miles, Madeira (madeira); W. A. Ross & Brother, Ltd., Liverpool (stout). In addition to this list of first-class agencies, Adet, Campredon & Co. are export agents for the Imperial Mineral Water Co., Ltd., of Tokyo and Osaka, whose aerated waters have the largest sale on the local market and an extensive sale abroad. They are also representatives for Yokohama of the Comité des Assureurs

Maritimes de Bordeaux (Board of Underwriters). Telegrams should be addressed "Mossycamp" or "Adet," Yokohama, the codes used by the firm being A. B. C. 4th and 5th editions, Bentley's and Western Union.

M. ONO & CO., INCORPORATED

ALTHOUGH established since the War, M. Ono & Co. can not be regarded as a new enterprise, but rather as ranking with the oldest in Yokohama, for there are few better known or more highly respected business men in Japan than the President and founder, Mitsukage Ono, Esq., member of the House of Peers, President of the Yokohama Fire, Marine, Transit & Fidelity Insurance Co., Auditor of the First Fire, Marine & Re-Insurance Co., member of the Board of Trustee of Yokohama Commercial School, prominent Yokohama silk merchant, former president of the Yokohama Specie Bank, Ltd., former president of Yokohama Chamber of Commerce, former president of Silk Association of Yokohama, and former Mayor of Yokohama. Mr. M. Ono is also responsible for the promotion of the Yokohama Harbour Scheme recently completed, and many other improvements which have benefited the port. The principal business of the concern is the exportation of silk and it is because Mr. M. Ono is one of the oldest living silk merchants in the country, commencing, as he actually did, as a wholesale dealer in 1883, that the concern may be considered in the light of an old established house branching out into new lines, and generally expanding.

Mr. Tetsuro Ono, son of the above gentleman, and Managing Director of this company, has had all the advantages of a first-class European and American commercial training and holds a prominent position in Japan. He is a director of the Tokyo Silk & Woollen Milling Co., Ltd., the Japan Veneer Manufacturing Co., Ltd., and other enterprises.

Connections have been formed with the United States of America, Dominion of Canada, England, France and other countries in Europe, South American republics, Australia, New Zealand, India, and China, etc. for the importation of iron, steel, hardware, machinery, stationery, chemicals, cotton, rubber, leather, hemp, wool, bristles, tallow, wax, rosin, fertilizers and all kinds of raw materials.

In addition to raw silk, which they handle to the extent of more than fifty thousand bales annually, at the present market rates valued approximately at Yen 75,000,000, habutai, silk and cotton goods, hosiery, notions, veneer manufactured goods, vegetable oil, beans, seeds, peanuts, canned fish, etc., and a long list of raw materials embracing practically everything produced in the country, are also exported.



TYPE OF SMALL HOME TILE FACTORY



ADET, CAMPREDON & CO., YOKOHAMA: A CORNER OF THE BOTTLING AND PACKING DEPARTMENT —
VIEW OF WINE AND SPIRITS CELLAR

A large staff is employed, the heads of departments, like Mr. T. Ono, for example, speaking English and other languages with fluency. It may be observed that such modern and progressive organisations as M. Ono & Co. will do much to maintain the trade of the country in the competitive struggle that it is probable will ensue with the return of peace.

IWAKAMI & CO.

IWAKAMI & Co. is another firm which enjoys an excellent and well earned reputation, and from the most modest beginning has achieved a prominent place in the Import and Export Trade of Japan. The firm was first established in Yokohama in 1889, and in 1893 opened its first branch at Sino. Further branch offices are now maintained

at Osaka, Kobé, Ashikaga, Hawaii, San Francisco, and New York, and agents have been appointed at Seattle, Los Angeles, Ogden, Salt Lake City, Vancouver, Manila, in Korea and Formosa, and in Chili, Peru and other points in South America.

Mr. Iwakami has very considerable interests in various industrial concerns for the manufacture of cotton crepe and silk goods, which represent the principal lines of export. In addition, textiles, hemp and straw braids, and matches are exported. Tinned crab, shrimps, and salmon, for the preparation of which the company operates its private packing plant, as well as rice and beans from their own mills, are other important export lines. Imports handled include iron, tin plate, drugs, dyestuffs, leather, machinery, chemicals, and practically any other com-

modity for which there is a demand in the market.

About one hundred and fifty clerks are employed in all branches, and agents are maintained in the manufacturing centres to command buying facilities.

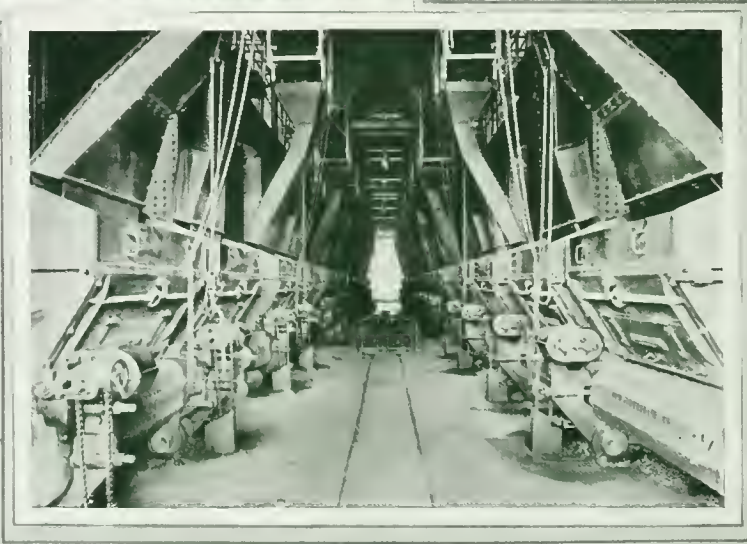
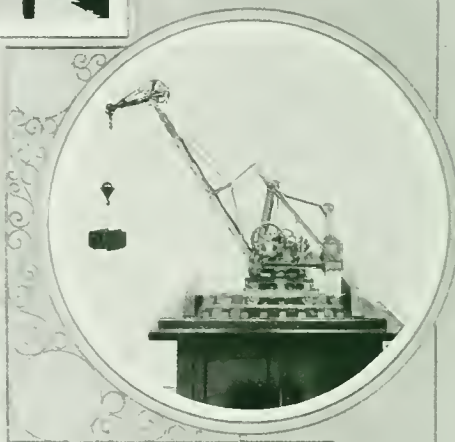
Mr. Iwakami, the founder and president of the company, is greatly interested in the encouragement of industry and is personally connected with many ventures. The Ashahi Textile Co. is under his direct management, and he is also a director of the Nippon Cotton Crepe Co., Ltd.

EDITORIAL NOTE:—Interesting details in connection with other import and export houses located in Kobé, Osaka, Shizuoka, Shimonoseki, Moji, Dairen, and Keijo are given in the sections dealing with these cities.

THE Iwakami & Co. Ltd. Building, San Francisco



IWAKAMI & CO.: GODOWNS AT OSAKA — KOBÉ GODOWNS — YOKOHAMA PREMISES AND STAFF — SAN FRANCISCO BRANCH



BABCOCK & WILCOX, LIMITED: ELECTRIC COAL HOIST INSTALLED BY THE COMPANY FOR THE OSAKA ELECTRIC LIGHT CO., LTD. — BOILER INSTALLATION AT THE KANEGAFUCHI SPINNING COMPANY'S PLANT — AN EXAMPLE OF THE STOCK OF COMPLETE WORKING MODELS OF THE COMPANY'S VARIOUS IMPORTANT INSTALLATIONS — BOILER HOUSE EQUIPPED FOR THE OSAKA ELECTRIC LIGHT CO., LTD.

XIV. MACHINERY IMPORTERS AND EXPORTERS

BABCOCK & WILCOX, LIMITED

WHEREVER the steam boiler is known the name of Babcock & Wilcox is familiar, for it stands for the greatest progress made in the science of development of power from steam. The boiler with which the name is inseparably associated is manufactured both in England and America, but it is only with the British company that this present article deals. Babcock & Wilcox, Limited, is an old established company, and quite apart from its great work for the manufacture of boilers, it is to-day one of the largest manufacturers of engineering plants in the world, employing in peace time upwards of 6,000 people, and having its factories, assembling shops, and repair plants established in practically every centre of the world. Some idea of the high appreciation in which the Babcock & Wilcox boiler is held by the engineering world may be gathered from the fact that over 12,000,000 horsepower land type and over 3,000,000 horsepower marine type of boilers have been installed in all classes of industries ashore and afloat. The British and American, also a number of the other navies of the world, have adopted the system, and have installed Babcock & Wilcox boilers, and in the mercantile marine these are coming daily more into use. Where water tube boilers of lighter make are required, as for instance in torpedo boats, the company make, under license, the White Forster boiler.

It is interesting to note that in Japan alone Babcock & Wilcox boilers generating 428,000 H. P. are in use. Among the large boiler plants installed by the company in Japan may be mentioned those at the Imperial Steel Works, Yawata, the Japan Steel Works, Muroran, the Kawasaki and Mitsubishi Dockyards, the naval arsenals, and at the Imperial Palace. A great number of the largest power houses and electric light stations use Babcock & Wilcox boilers, and generally, the manufacturing and industrial concerns of any magnitude in the Empire have installed complete Babcock & Wilcox plants with their component attachments such as superheaters, automatic stokers, coal and ash conveyors, pipework, etc.

It would be a mistake, however, to imagine that the entire energies of the company are devoted to boiler-making. That is the

original and principal business of the enterprise, but just as the operations of the company are widespread throughout the world, so has their range of manufactures extended until to-day it covers practically every line incidental to the development of power, and the manufacture of accessories. The Babcock & Wilcox patent superheaters and mechanical stokers and conveyors for coal, ashes, and ores are as widely known and used as the famous boilers. The company also manufactures steel buildings for the boiler and engine houses of large plants, as well as electric cranes, transporters, and practically everything that is required for the equipment of electricity-producing stations, excepting the steam engines and the electrical machinery. Babcock & Wilcox, Ltd., have carried out and have on order many contracts which comprise steel buildings, boilers, superheaters, mechanical stokers, all the steam and water piping, pumps, water-softening apparatus, circulating water pipes, water filters, fuel and ash conveyors, and ash ejectors. A department of the company's business which has developed into a very well organised and important one is that of the manufacture of electric cranes of all descriptions; for instance, overhead travelling cranes for conveying goods or materials in workshops or warehouses; cranes for charging steel furnaces, or for conveying heated billets of steel from furnaces to the rolling machinery, and cranes for wharves and docks for unloading goods from steamers. Several important harbours have been equipped with such cranes. They are installed by the Admiralty, the Port of London Authority, Hay's Wharf, London, and on the South-Eastern and Chatham Railway Company's docks at Dover, also in numerous works, as well as abroad. A number of these cranes are in use in Japan. Babcock & Wilcox also make and install coal-lifting and -conveying plants. They manufacture oil engines, and hold patents for boat davits which are rapidly coming into general favour because of their advantageous features.

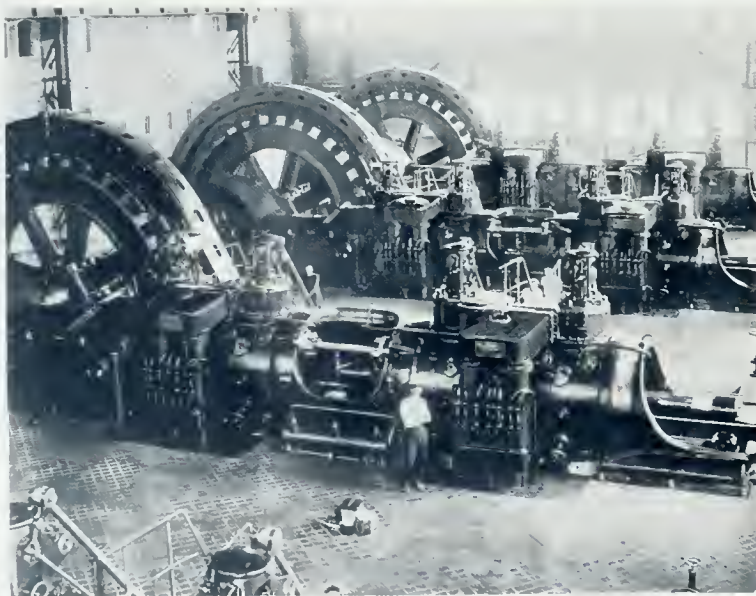
The head offices of the British Company of Babcock & Wilcox, Ltd., are at Farringdon Street, London, E. C., England, and the main works are at Renfrew, Scotland.

For well over a quarter of a century the products of Babcock & Wilcox, Ltd., have been used in Japan. The business with that country was originally conducted through agents, but about twelve years ago the company opened its own branch in Yokohama. Subsequent extensions were made through branch offices at Osaka, Moji, and Seoul. In 1912 Tokyo was made the headquarters for Japan, offices being taken at No. 1, Yuraku-cho, Ichome, Kojimachi-ku. Assembling and repair shops are maintained at Yokohama, besides warehouses for the stocks carried for the Japanese trade. The Manager for Japan is Mr. H. E. Metcalf and the Sub-Manager is Mr. J. Thompson.

L. J. HEALING & CO., LIMITED

THE firm now known as L. J. Healing & Co., Ltd., was originally founded by Mr. L. J. Healing, who in a small way began importing electrical material into Japan in the latter part of 1891. For several years Mr. Healing worked alone and it was not until 1897, when he took a trip back to England, his native land, that he was joined by Mr. Edwin Eddison, M. A., who looked after the business in his absence and subsequently joined him in partnership. The business, which was confined entirely to electrical, mechanical, and engineering work gradually expanded, a branch being opened in Kobe in 1903. It was not until 1907, however, that the firm was registered in London as a limited liability company with a capital of £100,000, this being deemed a necessary step in order to define the interests of the partners.

Many important contracts have been undertaken for the company, among which may be mentioned the notable one of erecting and equipping a complete Gas Power Station for the Imperial Government Railways of Japan. This plant is unique in its way, consisting of a 6,000 K. W. Mond Gas Plant with Ammonia Recovery driving four Nuremberg type gas engines of 2,500 H. P. each direct connected to a Dick-Kerr Alternator of 1,500 K. W. This plant, which was finished in 1914, has been a complete success, running with the least amount of trouble and generating electricity at a cost of under a farthing per K. W. hour.



HEAD OFFICE OF MESSRS. L. J. HEALING & CO., LTD., TOKYO—ELECTRICAL POWER PLANT INSTALLED AT KANAGAWA BY
MESSRS. L. J. HEALING & CO., LTD.



PROMINENT FOREIGN ENGINEERS AND BUSINESS MEN OF TOKYO

(Left) L. BRUSEWITZ, Managing Director, J. A. Kjellberg & Sons, Ltd. (Upper Row, Left to Right) H. E. METCALF, Manager for Japan, Babcock & Wilcox, Ltd.—W. STANLEY MOSS, Representative for Japan, Arthur Balfour & Co., Ltd.—ARTHUR BUCKNEY, A. M. I. E. E. (Middle Row) F. W. HORNE, President, The F. W. Horne Co.—E. W. FRAZAR, Managing Director, Sale & Frazar, Ltd.—L. J. HEALING, President, L. J. Healing & Co., Ltd.—W. EGBERT SCHENCK, Treasurer and General Manager, The F. W. Horne Co. (Lower Row) J. THOMPSON, Sub-Manager for Japan, Babcock & Wilcox, Ltd.—K. GADELIUS, Proprietor of Gaddeius & Co.—A. J. S. LEFROY, Representative of Thomas Firth & Sons, Ltd.

Besides this, a large producer plant has been supplied to the South Manchuria Railway, as well as a number of gas power plants too numerous to mention here, all of which have given the greatest satisfaction. Besides gas power plants, a large number of steam plants and water power plants have been designed and supplied by the firm.

Another distinctive feature of the firm's business has been the supply and erection of town gas plants and among those may be mentioned two retort houses to the Yokohama Municipality, a large plant to the Kobé Gas Company with two subsequent extensions, a large plant to the Tokyo Gas Company, and also a large number of smaller ones in various other towns in Japan.

Sugar mills have been erected in Formosa, and a number of all kinds of manufacturing plants have also been supplied to the leading business men in Japan.

It should also be mentioned that the importation of telegraphic apparatus has been particularly specialised in by the company, a vast amount of apparatus having been furnished to the Communication Department, and nearly all the submarine cable imported in recent years has passed through their hands, the contracts running into millions of yen.

There is no branch of the engineering business which the firm does not undertake, and since Japan's development as a manufacturing company, an Export Department under expert supervision, has been opened, confined to engineering supplies and machinery.

The present Directors of the firm are Messrs. L. J. Healing, J. L. Graham, and J. D. Collier in Japan, while Messrs. W. Kemsley, G. E. Healing, and E. Tozer constitute the London Board.

The London office is at 84, Fenchurch Street, while besides the head office at 24, Unemecho, Tokyo, there are branch offices at Osaka and Dairen.

JAMES MORRISON & CO., LIMITED

No better method can be found to give an idea of the extent and importance of the operations of Messrs. James Morrison & Co., Ltd., the well-known firm of manufacturers' agents and representatives, than to publish the following comprehensive list of sole agencies held by them for Japan:

W. H. Allen, Son & Co., Ltd. Open and Enclosed Engines (simple, compound, and triple expansion types). Condensing Machinery (surface, barometric, and low-level jet types), including "Allen-Edwards" reciprocating or "Kinetic" rotary air pumps. "Conqueror" centrifugal low-lift and turbine high-lift pumps. Fans for forced, induced draught, and general ventilating purposes. Vertical Enclosed Oil and Gas Engines. Steam Turbines (radial flow and axial flow types). Steam Driven Air Compressors. Continuous current dynamos and motors and control gear. Electrically driven coaling winches, ash, ammunition, and boat hoists, etc.



JAMES MORRISON & CO., LTD. (JAPAN BRANCH), AGENTS AND REPRESENTATIVES FOR W. H. ALLEN SON & CO., LTD., BEDFORD, ENGLAND;
 J. & E. HALL, LTD., DARTFORD, ENGLAND; PALMERS, LTD., JARROW-ON-TYNE; ROPEWAYS, LTD., LONDON; SAUTTER HARLE
 & CIE, PARIS; RANSOMES & RAPIER, LTD., IPSWICH, ENGLAND; COCHRAN & CO., ANNAN, SCOTLAND;
 MELDRUMS, LTD., MANCHESTER, ENGLAND; W. T. GLOVER & CO., LTD., MANCHESTER, ENGLAND

J. & E. Hall, Ltd. Patent Carbonic Anhydride (CO₂) and Ammonia (NH₃) Refrigerating and Ice Making Machinery for land and marine installations.

Palmers, Ltd. Naval and Mercantile Vessels of all descriptions. Blast Furnaces and Rolling Mills, Galvanising Works. Pig Iron Manufacture. Steel Manufacture.

Ropeways, Ltd. "Roes" Patent System of Aerial Rope Tramways and Transmission Lines.

Sautter Harle. Jean Rey's System of Lighthouse Mirrors and Reflectors, Naval and Military Searchlights, Makers of the Patent Metallic Reflector, Military Automobiles, Submarine Mines.

Ransomes & Rapier, Ltd. The "Stoney" Patent System of Water Control, Makers of Water Sluice Gates for hydro-electric works, river control irrigation and drainage work.

Cochran & Co., Ltd. Patent Vertical Multitubular Boilers for land and marine use, adapted for coal or oil firing.

Meldrums, Ltd. Mechanical Stokers for all purposes of the coking and sprinkler types. Dust Destructors.

H. T. Glover & Co., Ltd. "Glovers" Electric Cables for all purposes.

John Thornycroft & Co. Torpedo Boat Destroyers, Mine Layers, Marine Motors for all purposes.

Hawthorn, Leslie. Locomotives for all purposes. Locomotive Cranes.

F. W. Scott. Steel Wire Ropes.

C. Isler & Co. Boring Plants for Prospecting for Minerals, Oil and Water Supplies. Hydraulic and Consulting Well Engineers.

Ransomes, Sims & Jefferies. Agricultural Machinery for all purposes. Portable Engines.

Hick, Hargreaves. Horizontal Corliss Type Engines.

It will be noted that the manufacturers represented are of international reputation since there are few parts of the globe where their products, covering practically the whole field of steam and electrical machinery, railway and marine supplies, the latest mechanical devices and installations of all descriptions, are not in use.

The space at our disposal does not permit of the inclusion of a complete list of the big contracts handled in Japan, but it may be observed that practically all departments of the Japanese Government are continually being supplied with important installations, auxiliary machinery for the fleet, etc. Municipalities throughout the country are also numbered amongst the most important clients.

The head office of James Morrison & Co., Ltd., is at No. 5, Fenchurch Street, London, and the Japan branch, under the management of Mr. G. B. Slater, is at No. 1, Yaye-sucho Ichome, Kojimachiku, Tokyo.

To facilitate inquiries, which receive immediate attention, it should be noted that the telegraphic address is Manifesto, for both London and Tokyo, and the following codes are used: A. B. C. 4th & 5th Editions, Bedford McNeil, Moring & Neal's New General and Mining Code, Western Union and Private Code.

The Directors of the company are: Messrs. S. C. Clarke, J. Ewart, C. B. Ewart, G. M. Palmer, C. E. Wood, and E. C. Potter, Secretary.

EDGAR ALLEN & CO., LIMITED

WHILE it is recognised by those at all well versed in the conditions of commerce and industry in Japan that the Japanese have made tremendous strides towards economic self-reliance, it is equally well recognised that there are still industries which present a wide field of opportunity for the foreign manufacturer. One direction in which such an opportunity exists is that of the supply of special steel castings, forgings, machine tools, tool steel and so forth, for in this field the older steel masters of England are without rival. Their great experience, completely equipped plants, and specialised processes maintain their products against all competition, and the Japanese themselves readily admit their dependence upon such concerns for many manufactures which Japan will not be in a position to furnish for years to come.

These remarks apply to Edgar Allen & Co., Limited, who have held a prominent position in the Japanese market for many years past. This company and its special products are so well known that it hardly seems necessary to make more than passing reference to the history of the business, or to those particular features of its operations which have made it world famous. The company's Imperial Steel Works at Sheffield have acquired a reputation that requires no discussion. The business was founded in 1868 by the late Mr. William Edgar Allen, LL.D., who manufactured principally tool steel and files. Mr. Allen sought his most important markets abroad, and long ago established a reputation for his special lines in Italy, Spain, Portugal and other foreign countries. That this policy of opening up and developing new fields of enterprise has had a great deal to do with the success of the Imperial Steel Works there can be no doubt. Through careful study of foreign requirements and conditions, and a readiness to meet peculiar needs as ascertained in other countries, Edgar Allen & Co., Limited, have always readily achieved success wherever they have extended their operations. Their experience in Japan has proved no exception to this rule.

The late Mr. Allen developed the business

steadily, and lost no opportunity of acquiring new and wider interests. He bought out the very old established firm of Hoole, Staniforth & Company, and in 1890 transformed the business into the present limited liability company. Three years later Edgar Allen & Co., Limited, absorbed the interests of Askham Brothers & Wilson, Limited, who specialised in points and crossings for railways and tramways, and in the manufacture of stone breakers, ore crushers, and grinding and conveying machinery. Consistent with these important additions to the manufacturing capacity of the company, a progressive policy of development has been followed right down to the present day, and step by step Edgar Allen & Co., Limited, have widened their operations, and increased the number of specialised lines of industry, thus assuring to themselves a strong position in the markets of the world. From 1903 onward the progress of the company has been particularly marked. The Imperial Steel Works covers at present over 22 acres of ground and normally employs a technical staff of over 200, with more than 2,000 workmen, though under war conditions which have led to such phenomenal expansion in the whole of England's iron and steel industry, these figures scarcely convey an idea of the activity which prevails in the works. But we are not dealing with the part which Edgar Allen & Co., Limited, have played and are playing in support of the Allied cause. What is of more vital interest in foreign fields is their capacity to maintain British industrial prestige under normal conditions in competition with the world.

The company manufactures a wide range of special steel castings and forgings, tool steel, machine tools, crushing and grinding machinery for many different industries, motor car steels, railway and tramway switches, and crossings, special railway material, gears, saws, drills and so forth. It is in these special lines that the company has made its reputation, and associated its name with all that is best. The foundry, which was remodelled just before the war, is replete with every system and appliance for turning out special work by the crucible, Tropenas, Siemens open hearth, and electrical processes. It may be mentioned that the Tropenas system produces steel castings which contain the essential combination of high tensile strength and high elongation, the process having been adopted by the British and Japanese and other foreign governments. All classes of ordinary carbon tool steel are made, as well as the famous "Stag Special" and "Chikara" high-speed steels, "Imperial" turning and finishing steel, and other special steels. Mention should also be made of the



EDGAR ALLEN & CO., LTD.: (LEFT TO RIGHT) PATTERN SHOP—TRAMWAY POINT SHOP—FOUNDRY, BAY 2—PLATE SHOP—TOOL STEEL WAREHOUSE—FOUNDRY, BAY 1

large output of miners' drill steels. Apart from tool steels the company has specialised in the manufacture of alloy steels for motor cars and aircraft, and the "Imperial" manganese steel is renowned for its remarkable qualities. This product can be supplied as castings, rolled bars, sheets, forgings, or patent-rolled railway and tramway rails; crossings, switches and so on. The chief purposes to which it is applied are points and crossings for railways and tramways, screening bars, renewable jaws of crushers and other hard-wearing parts of crushing and grinding machinery, dredger pins, and bushes. It is also interesting to note that it is utilised for making shrapnel-proof helmets for soldiers.

"Imperial" manganese steel has been very widely supplied by Edgar Allen & Co., Limited, who have carried out extensive contracts for the supply of special track work, points and crossings, etc., in connection with some of the biggest traction undertakings in the world. In this connection it may be mentioned that the company supplied requirements of this nature for the Tokyo, Yokohama, and Osaka electric tramway systems. Edgar Allen & Co., Limited, manufacture a large variety of machinery for such industries as mining, cement making, ore treatment plants, dredging operations and general contracting work. Among their lines may be mentioned crushers, battery parts, such as stamp shoes and dies, tube and ball grinding mills, rotary kilns, conveyors, elevators, and disintegrators.

The record and reputation of Edgar Allen & Co., Limited, are too well known to require further comment. The organisation of the company is modern and perfect, giving the concern the capacity to handle any new developments in foreign fields. Branch offices and stores are maintained in Johannesburg, Montreal, Chicago, New York, Petrograd, Tokyo, and Osaka, and there are agencies spread throughout the world. The Tokyo office, which is under the management of Mr. R. H. Gordon, was established in 1905, and it is needless to say that in the remarkable expansion which has taken place in Japan of recent years, the company has found a rich market for its products, the trend of industrial development establishing a keen demand for high grade special products such as Edgar Allen & Co., Limited, manufacture.

Mr. R. Woodward is chairman of the Directors of the company, the Board comprising also the following: Messrs. A. E. Wells, F. A. Warlow, W. Crosby, C. K. Everitt, J. F. Moss, and J. C. Ward. The authorised capital is £525,000, in Ordinary and Preference shares, the amount paid up being £490,000.

ARTHUR BUCKNEY, A. M. I. E. E.

THE rapid industrial development of Japan, and the bold strides which the country has made in all branches of manufacturing enterprise, while they have displaced many foreign interests in the assiduously fostered effort to make Japan entirely self-contained, have not yet made the country independent of the thoroughly qualified foreign engineer, nor have they lessened the demand for special plant necessary to the greatest enterprises. As a matter of fact the reverse is the case, for with every new departure in the field of electrical or mechanical engineering, the services of the foreign engineer become more valuable, and a call is made on the great works of Britain or elsewhere to supply the machinery. In the introduction of modern engineering methods to Japan, Mr. Arthur Buckney, A. M. I. E. E., has taken a prominent part, his own business giving him a particularly close connection with every development.

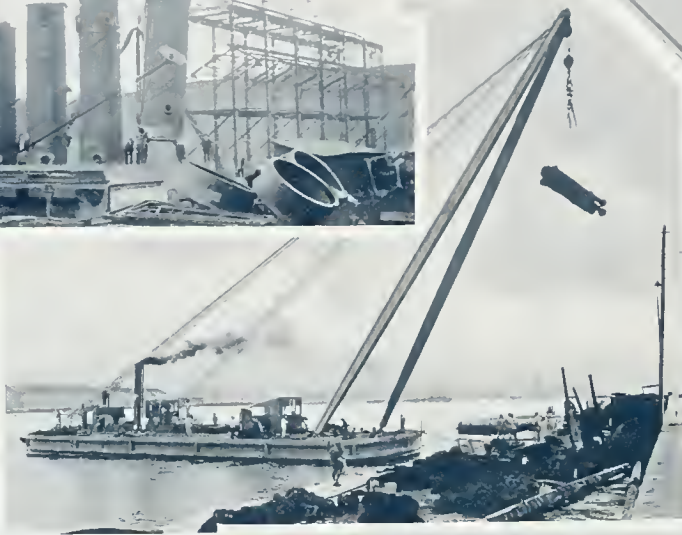
Mr. Buckney has had a lengthy experience as an engineer in this country, and he knows the conditions and requirements of Japan perhaps more intimately than most of his professional colleagues. He was engaged in the capacity of Technical and Engineering Manager for a formerly important German firm, but naturally severed his connection with the same immediately upon the declaration of war with Germany. One of the agencies of Carl Rhode was that of the Lymn Chemical Engineering Co., Ltd., of London, which had originally been obtained through Mr. Buckney's influence, and that agency came into his hands when he established himself in business on his own account. What Mr. Buckney has to say with regard to the introduction of the Lymn system of gas-producer plant, and by-products from lignite coal, peat, etc., and the extensive use of this system throughout the important and ever expanding chemical industry of Japan, will be read with keen interest.

One of the most important installations so far undertaken is of a 10,000-kilowatt gas power plant at the famous Fushun Collieries of the South Manchuria Railway Co., Ltd. This plant was supplied through the agency of Mr. Buckney and represents only one of several units. The Fushun Collieries require an aggregate of 80,000 kilowatts, and this enormous power is to be furnished by the supply of one unit per annum, the time limitation being enforced by the difficulties of transportation and other harassing war conditions. Should the war terminate and conditions improve to permit of a quicker installation, the work will naturally be completed as fast as possible. The power generated in this particular install-

ation is, of course, for the working of the collieries, and also for the large chemical works which are to be constructed.

Whilst the Lymn products are Mr. Buckney's special care, he is also active in the supply of all kinds of heavy machinery. The contract for several large floating cranes on account of the Russian Government was secured by this gentleman and the way in which the contract was handled, combined with the successful working of the cranes, resulted in further orders being placed with Mr. Buckney in the face of keen competition. These particular cranes, some of which were for the harbour construction work while others were specially designed for the handling of locomotives and railway stock arriving from North America for war purposes, have a lifting capacity of 45 tons with an 80-foot head and a span of 45 feet. A number of tug boats were also supplied through Mr. Buckney to the Russian Government. In the field of mining enterprise, Mr. Buckney supplies not only power plants, but general machinery such as batteries, winding engines, and, especially, various chemical plants for the direct recovery of the by-products from coal and the manufacture of nitric acid, salicylic acid, trinitrotoluol (TNT), and for ammonia oxidation, distillation, and similar processes.

It is generally believed that anybody can succeed in business to-day in Japan, so propitious are the times and so buoyant the situation, but while there may be a good deal of warranty for such a belief, in so far as ordinary trade is concerned, it is obvious that success in the skilled professions of electrical and mechanical engineering is not casually obtained. There are such things as initial qualifications and practical and ripe experience which are essentials to success in such a wide field as Mr. Buckney has trenched upon. Mr. Buckney received his professional education in England and Germany, and gained his initial experience with the British Thomson-Houston Co. Thereafter he went to Germany, where his general knowledge and experience were widened by visiting some of the greatest engineering plants in that country. Mr. Buckney was engaged for several years with one of the largest gas engine building works in Saarbrücken, the famous centre of the German steel industry. Such a ripe experience is invaluable, especially in a country like Japan where electrical enterprises of every description are likely to become very important, and the products of which undoubtedly will constitute a large section of future exports. The sphere of Mr. Buckney's business is wide, as a branch is maintained at Vladivostok in charge of a European engineer, and a further branch is now being established at Tomsk. From these centres the Russian territory is



ARTHUR BUCKNEY, A. M. I. E. E. : ERECTION OF LYMN-RILEY GAS PRODUCERS — TYPE OF FLOATING CRANE SUPPLIED TO THE RUSSIAN GOVERNMENT
—TYPE OF TUG BOAT SUPPLIED TO THE RUSSIAN GOVERNMENT—ANOTHER PROCESS IN THE ERECTION OF LYMN-RILEY GAS PRODUCERS

very thoroughly covered. Mr. Buckney's Tokyo office is located in the Mitsubishi Building, where there are commodious and well installed business quarters. The personal staff comprises two qualified European engineers, a European chief clerk, and a number of Japanese assistants.

DICK, KERR & CO., LIMITED

THE remarkable development which has taken place in the industrial life of Japan during the past few decades has afforded opportunity to many great British enterprises to expand their foreign business and establish in the Japanese market the most valuable of connections. Such is the case with Messrs. Dick, Kerr & Co., Ltd., the well known engineers and contractors. For a good many years the company has been prominent in all the important engineering developments in Japan, and has carried out a number of contracts for public services, apart from the transaction of a volume of business in electrical installations and electrical supplies generally. To such an extent has the reputation of Dick, Kerr & Co., Ltd., become known as manufacturers of electrical machinery and appliances, that it is frequently forgotten that the company was originally a contracting concern. As a matter of fact it was only about sixteen or seventeen years ago that the company found it necessary to make electric machinery and plant, so as to facilitate the carrying out of large contracts which were secured in the United Kingdom and abroad. The company is still one of the largest contracting concerns in the world, and its operations embrace many countries, permanent branches being maintained, apart from the works in England, at Tokyo, Milan, Buenos Aires, Rio de Janeiro, Sydney, and Johannesburg. The activities of the firm consist essentially of the two sections of contracting and manufacturing, equal in importance, though differing in character.

Dealing with the contracting operations of Dick, Kerr & Co., Ltd., it may be said that they cover practically every class of public service. For instance, railways have been constructed for the Government of Portuguese East Africa, in Argentina, and in Canada; a huge reservoir has been built for the London Metropolitan Water Board; a pumping station has been constructed at Walton, and waterworks at Las Palmas. These are only examples of the widespread operations of the company, which is open to contract for practically any work in any part of the world.

The manufacture and installation of electric plant and machinery constitute as diversified a set of undertakings as does the general contracting. The electric works are in Preston, Lancashire, and the General Iron

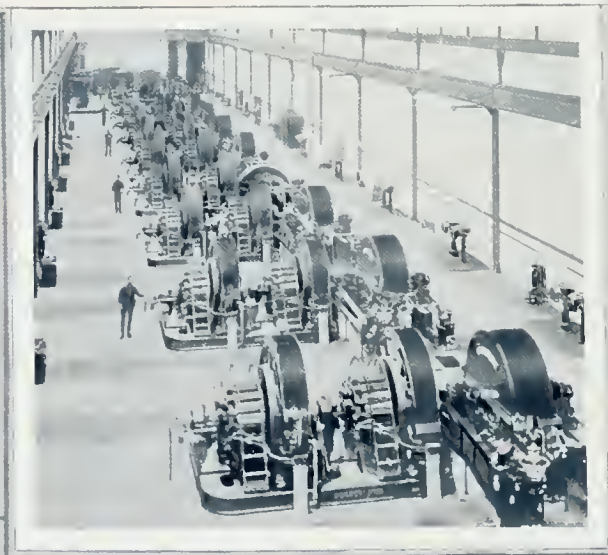
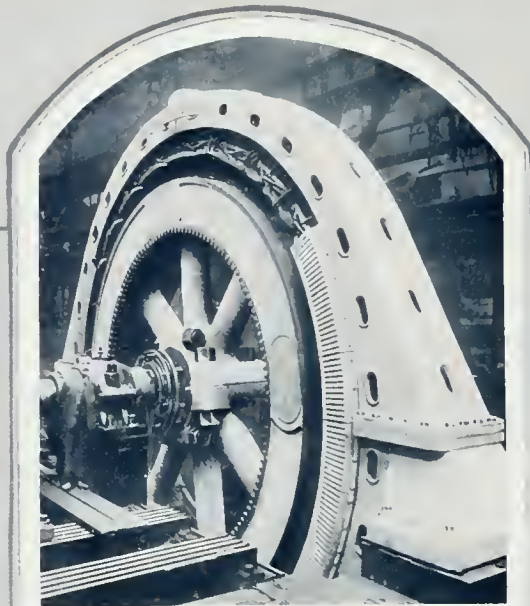
Works in Kilmarnock, N. B. At these works Dick, Kerr & Co., Ltd., manufacture electrical machinery of all kinds, electric locomotives, electrical apparatus and also steam turbines, light railway rolling stock and permanent way material, and metallic filament lamps known as the "Britannia" Lamps. In addition to their being manufacturers of electric and railway apparatus Dick, Kerr & Co., Ltd., have special facilities for the supply of engines, boilers, pumps, condensers, water turbines, rails, etc. The company is in the exceptional position of being able to carry out the complete equipment and installation of electric power and lighting plants, whether driven by steam or water power, electric railways and tramways and all kinds of electrical installations for industrial purposes, and when required the company would enter into a contract for the supply of all apparatus and materials, including the erection of same, and would hand it over to the customers in perfect working condition. For an example of this kind of work in Japan, it should be mentioned that Dick, Kerr & Co., Ltd., undertook in 1904 to supply, as well as to install, the whole of the equipment and installation of the late Tokyo Denki Tetsudo Kabushiki Kaisha system of tramways. This line is known as the "Sotobori-Sen," now a part of the lines of the Tokyo Municipal Tramways. This contract included the supply and erection of the entire apparatus and material for the Shibuya Power Station, two sub-stations, equipments and trucks including car bodies, overhead and feeder lines, permanent way, and repair shop.

Up to this stage in their operations in Japan, Dick, Kerr & Co., Ltd., had representatives in the country, but in May, 1907, they opened their own branch in Tokyo, at No. 3, Ichome, Uchisaiwaicho, Kojimachi-ku. They were one of the first of the large British manufacturers to adopt the policy of carrying on their business in Japan with their own staff, instead of following the more general custom of being represented by some merchant house, and much of the success which they have gained has been due to this policy. The Japan branch is not only engaged in the importation and sale of machinery, but has a staff of expert engineers for the erection of machinery supplied by the company. Among the large contracts which Dick, Kerr & Co., Ltd., have carried out in Japan may be mentioned the Inawashiro Hydro-Electric Power Co.'s installation, which is said to be the largest in the Far East. In this power station there are installed six sets of 7,775 K. V. A. generators, all of which were manufactured by the company at their Preston Works. Another notable contract is that of four sets of slow speed gas-driven 1,500 K. V. A. alternators, supplied

to the Yaguchi Power Station of the Imperial Government Railways of Japan. These machines supply electrical energy for operating the trains running between Tokyo Station and Yokohama, and the first section of the main line of Japan to be operated electrically. All these machines are giving very good results, and are now operating in good condition. Since the establishment of the Japan branch Dick, Kerr & Co., Ltd., have supplied various electrical and other machinery to the following: The Financial Department of the Imperial Japanese Government; Sasebo Naval Dockyard; Kure Naval Dockyard; Imperial Government Railways; Formosan Government Railways; Tokyo Municipal Tramways; Kyoto Municipal Tramways; Osaka Municipal Tramways; South Manchuria Railway Co.; Kawagoe Railway Co.; Iyo Railway Co.; Keisei Electric Railway Co.; Keio Electric Railway Co.; Tamagawa Electric Railway Co.; Yokohama Electric Railway Co.; Odawara Electric Railway Co.; Nikko Electric Railway Co.; Nagoya Electric Railway Co.; Seto Electric Railway Co.; Mino Electric Railway Co.; Kyoto Electric Railway Co.; Keihan Electric Railway Co.; Kobe Electric Railway Co.; Tatsuno Electric Railway Co.; Kure Electric Railway Co.; Tosan Electric Railway Co.; Ina Electric Railway Co.; Inawashiro Hydro-Electric Power Co.; Soma Electric Co.; Motomiya Electric Co.; Tokiwa Electric Co.; Japanese Explosives Co.; Nippon Celluloid & Artificial Silk Co.; Japan Steel Manufacturing Co., and many others too numerous to mention.

THE F. W. HORNE CO.

THE F. W. Horne Company, a leading concern in the machinery and hardware industries of Japan, was established about twenty-six years ago, by Mr. F. W. Horne, as a private enterprise, to import American machinery and tools. After some years of successful trading Mr. Horne converted the enterprise into a stock company of which he became the President. Holding the representation for Japan of over fifty of the best known manufacturers of machinery and machine tools in the United States, the F. W. Horne Co. is in a position to handle a very large trade, and cater in every conceivable direction for the rapidly expanding manufacturing industries of Japan. A specialty is made of machine tools for arsenals, dockyards, and railway shops, as well as steels, fittings, and parts. The company has agencies for practically every line that may be called for, from locomotives, saw mill and other machinery, boilers, etc., down to the smallest fittings. From his lengthy experience in the Far East Mr. Horne has



DICK, KERR & CO., LTD.: ONE OF FOUR 1,500 K. V. A. 11,000-VOLT 3-PHASE 25 CYCLE ALTERNATORS SUPPLIED TO THE IMPERIAL JAPANESE GOVERNMENT RAILWAYS IN CONNECTION WITH THE ELECTRIFICATION OF THEIR MAIN LINE—50-TON ELECTRIC LOCOMOTIVE SUPPLIED TO THE BRITISH COLUMBIA ELECTRIC RAILWAY—POWER HOUSE AND PLANT ERECTED AND INSTALLED AT KINLOCHLEVEN FOR THE BRITISH ALUMINUM COMPANY, LTD.



THE F. W. HORNE COMPANY: TWO VIEWS OF MACHINERY DISPLAYED AT A JAPANESE EXHIBITION — THE TOKYO PREMISES OF THE FIRM

always been very closely in touch with Japanese requirements, and the trend of the trades or enterprises for which his company caters, and it has always been the policy to handle only the goods of the better class manufacturers. Exceedingly valuable connections have been formed in the United States, as may be seen from the list of companies represented, which is given below. The head office of the F. W. Horne Co. is at Nos. 6 and 7, Takiyama-cho, Kyobashi-ku, Tokyo. Here the company owns the property on which its offices and godowns are located. The building is one of three stories, constructed of brick, on the most modern lines. The showrooms are on the ground floor, where a large sample stock is displayed, the bulk storage being in the spacious godowns. Over 150 hands are employed. On the staff are a number of qualified engineers, lumber and other specialists, and experts for demonstrating new ideas and educating the local trade along modern lines. The iron and steel purchasing department of the Horne Co. is at 2 Rector Street, New York, through which the company is able to keep in constant touch with all the important manufacturing concerns in the United States. In Japan the F. W. Horne Co. has branches at Osaka, Nagoya, and Otaru; also at Keijo, Korea, and Dairen.

Mr. Horne has been decorated by the Japanese Government. He has other large interests in Japan, including the Presidency of the Nipponophone Manufacturing Company, which is noticed elsewhere, and has retired from the active management of the F. W. Horne Co. He has one of the most beautiful private residences at Nikko, the scenic ideal of all Japanese and foreigners. Mr. W. Egbert Schenck, Treasurer, is also General Manager of the F. W. Horne Co., with which he has been associated for over ten years.

Following is a list of the principal agencies held by the company in Japan: Brown & Sharpe Mfg. Co., Providence, R. I.; Pratt & Whitney Co., Hartford, Conn.; J. A. Fay & Egan Co., Cincinnati, Ohio; Nicholson File Co., Providence, R. I.; L. S. Starrett Co., Athol, Mass.; Yale & Towne Mfg. Co., New York City; Norton Co., Worcester, Mass.; Chicago Pneumatic Tool Co., Chicago, Ill.; Standard Tool Co., Cleveland, Ohio; Nordyke & Marmon Co., Indianapolis, Ind.; Wells Bros. Co., Greenfield, Mass.; Gould & Eberhardt, Newark, N. J.; E. W. Bliss & Co., Brooklyn, N. Y.; E. C. Atkins & Co., Indianapolis, Ind.; International Curtis Marine Turbine Co., New York; Heald Machine Co., Worcester, Mass.; Phillips Pressed Steel Pulley Co., Philadelphia, Pa.; Albany Hardware & Specialty

Mfg. Co., Albany, Wis.; Gandy Belting Co., Baltimore, Maryland; Fitchburg Machine Works, Fitchburg, Mass.; Green Tweed & Co., New York; Standard Pressed Steel Co., Philadelphia, Pa.; W. H. Bagshaw, Lowell, Mass.; Espen Lucas Machine Works, Philadelphia, Pa.; Diamond Machine Co., Providence, R. I.; Chalmers & Williams, Inc., Chicago Heights, Ill.; Carratt-Callahan Co., 30-32 Fremont Street, San Francisco; Noble & Westbrook Mfg. Co., Hartford, Conn.; Davenport Locomotive Works, Davenport, Iowa; Mosaic Tile Co., Zanesville, Ohio; Rivett Lathe & Grinder Co., Brighton, Boston, Mass.; N. O. Nelson Mfg. Co., 10th & Chestnut Sts., St. Louis, Mo.; Armstrong-Blum Mfg. Co., 339-357 North Francisco Ave., Chicago, Ill.; The White & Bagley Co., Worcester, Mass.; The Shaw Blue Print Mach. Co., 9-11 Campbell St., Newark, N. J.; E. J. Longyear Co., 710-722 Security Bldg., Minneapolis, Minn.; Inland Steel Co., First National Bank Bldg., Chicago, Ill.; Gulf States Steel Co., Brown-Marx Bldg., Birmingham, Ala.; Alan Wood Iron & Steel Co., Widener Bldg., Philadelphia; Athol Machine Co., Athol, Mass.; Pierce Machine Tool Co., 617 W. Jackson Blvd., Chicago, Ill.; National Roofing Co., Tonawanda, N. Y.; La Salle Machine and Tool Co., La Salle, Ill.; Bilgram Machine Works, 1231 Spring Garden St., Philadelphia, Pa.; Bickett Machine & Mfg. Co.; Phoenix Mfg. Co.; Falk Co., Milwaukee; Clarke Bros., Olean, New York; U. S. Graphite Co., Saginaw, Mich.

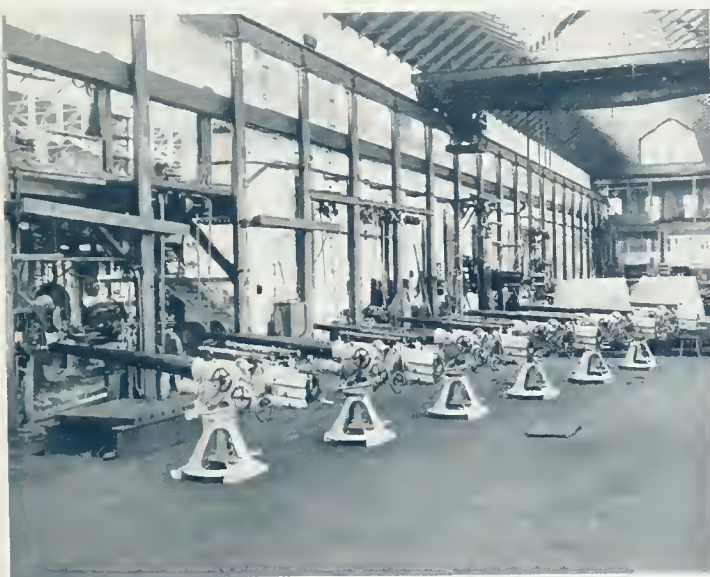
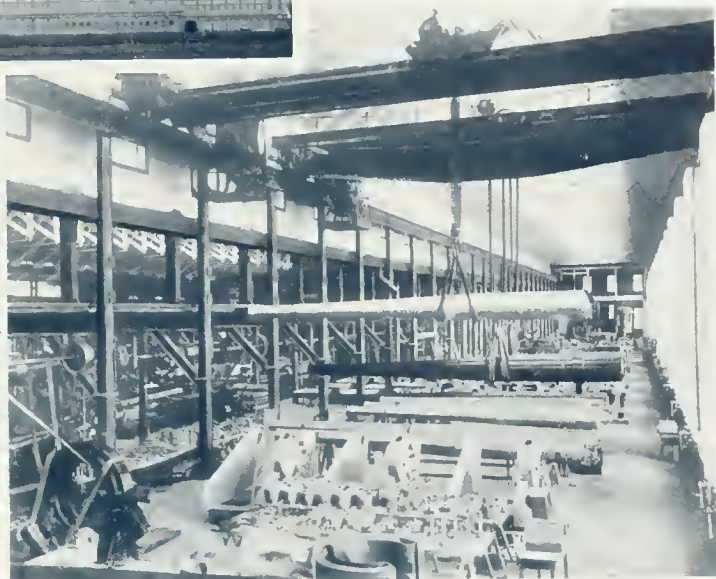
J. A. KJELLBERG & SONS, LIMITED

THE business now conducted in Japan by Messrs. J. A. Kjellberg & Sons, Ltd., was originally started by Mr. L. Brusewitz, who came to the country in 1906 and established himself in business as the first Swedish merchant in Japan. Two years later he opened the business in coöperation with the old Swedish export firm of Messrs. J. A. Kjellberg & Soner, of Gothenburg, and became Managing Director of the entire Japanese interests of the company. J. A. Kjellberg & Soner was established in Sweden in 1810, and thus it may be claimed that J. A. Kjellberg & Sons, Ltd., which is an amalgamation of their interests and those founded in the country by Mr. Brusewitz, is not only the oldest Swedish concern in Japan, but also holds the leading position in the Swedish-Japanese trade.

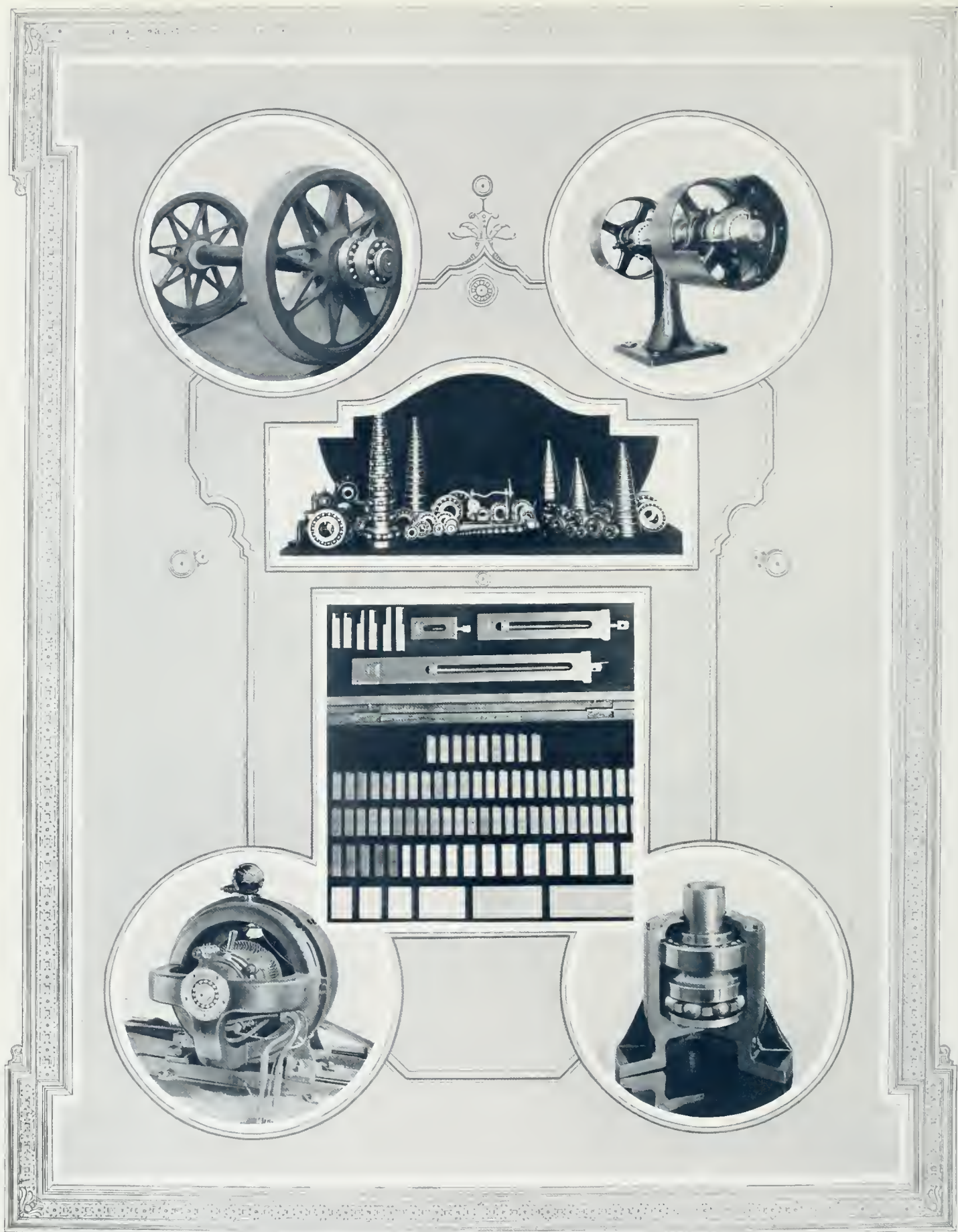
The company at present represents the foremost of Swedish industrial concerns, thus continuing and developing its original aim of introducing the products of Sweden to the local market. However, the sphere of activity of the company, which has considerable funds at its disposal, is by no means

limited to imports from Sweden, but includes an extensive trade with Great Britain, the United States, and other countries. Lately an export department has been organised which is doing successful business in Japanese goods with Eastern Asia and Australia. Among the important agencies held by J. A. Kjellberg & Sons, Ltd., may be mentioned that of the Swedish Ball Bearing Factory ("S. K. F.") of Gothenburg, which has developed during the last ten years into a world-wide business, the company having branch factories at several centres in the United States and in England, and sales offices all over the world. To give an idea of the magnitude of this industry it may be mentioned that in the United States alone, the sale of "S. K. F." ball bearings amounts to over 10,000 sets a day. For the sale of this line in Japan Messrs. Kjellberg have organised a special department employing a number of foreign as well as Japanese engineers and salesmen, throughout Japan, Korea, and Manchuria. The singular success of these ball bearings may be attributed not only to the superior design, but also to the good quality of the steel, which is supplied from the S. K. F. Company's own steel works at Hofors, Sweden, and last but not least, to the accuracy in manufacturing which guarantees a precision of 0.0001 mm.

Messrs. Kjellberg also represent the Bofors Ordnance and Gunpowder Works, for which they are doing a considerable business, chiefly in semi-finished steel products for war material. The Bofors Works in Sweden are well known for their high quality alloy steel forgings and castings. The casting of big guns is carried out according to the special Bofors process. Bofors Nobel powder is manufactured in various grades, including excellent qualities of smokeless and flameless powder. Another interesting article brought on the market by Messrs. Kjellberg is the Johansson Combination Gauge Set. By the use of these gauges it has been made possible to introduce into the busiest workshops a system of control which carries a precision hitherto unobtainable. One of our illustrations shows a set of Johansson measuring blocks by which an accuracy of 1/10,000th of a millimetre can be obtained. When the Johansson system was first brought to the notice of various authorities, including the experts of different universities, they doubted the possibility of such a degree of accuracy being realised. Now it has been submitted to practical tests in the foremost control offices in Europe and the United States, such as the Bureau International des Poids et Mesures, in Paris, the National Physical Laboratory, London, and the Kaiserli-



J. A. KJELLBERG & SONS, LTD.: S. K. F. BALL BEARING FACTORY AT GOTHENBURG, SWEDEN—THE GUN FACTORY, BOFORS WORKS, SWEDEN—
THE HEAD OFFICE, TOKYO—SANDVIKEN STEEL WORKS, EMPLOYING OVER 3,000 WORKMEN, SANDVIKEN, SWEDEN—GUNS AND
MOUNTINGS IN THE ERECTING SHOPS OF THE BOFORS WORKS, SWEDEN—OFFICE BUILDING, GOTHENBURG, SWEDEN



J. A. KJELLBERG & SONS, LTD.: BALL BEARING OF LOCOMOTIVE WHEELS—S. K. F. BALL BEARING IN BELT PULLEYS—DISPLAY OF BALL BEARINGS IN THE TOKYO OFFICE—A. JOHANSSON MEASURING GAUGE SET—S. K. F. BALL BEARING MOTOR—S. K. F. BALL BEARINGS

Normal Aichungs Kommission, Berlin, etc. These testing offices themselves have adopted the Johansson system for their control work. A more striking success for a Swedish inventor could hardly be imagined. It may be mentioned that the S. K. F. Ball Bearing Co. has based its manufactures on the Johansson Gauge System.

Besides the above-mentioned specialties, Messrs. Kjellberg carry on an extensive trade in iron and steel, representing leading Swedish steel works, such as Sandviken, Wikmanshyttan, Soderfors and others, and also buying direct from Sheffield and the United States. Messrs. Kjellberg have for many years been suppliers to the Japanese Army and Navy Departments, and are well known throughout Government circles. The senior partner, Mr. C. A. Kjellberg of Gothenburg, Sweden, is President of the Chamber of Commerce, and President of the Gothenburg Bank, besides taking an active part in promoting and financing railway companies and industrial enterprises throughout Sweden. The Japan head office of the company is at Mitsubishi Building, Yuraku-cho, Kojimachi-ku, Tokyo.

ALFRED HERBERT, LIMITED

THE firm of Alfred Herbert, Ltd., Yokohama, Tokyo, and Osaka, is a branch of the well-known firm of Alfred Herbert, Ltd., Coventry, England.

For many years this firm have had a world-wide reputation as builders of high-class machine tools and their accessories. From a comparatively small beginning twenty-eight years ago, they have built up one of the largest machine tool building and selling organisations in the world. They now have two works in the city of Coventry, England, where nearly 3,000 persons are engaged, and have branch offices in eight of the principal cities in Great Britain. Abroad they have offices in New York, France, Italy, India, Japan, and Russia. In their own works, they specialise in the manufacture of turret lathes, horizontal and vertical milling machines, cutter grinders and dieheads for bolt screwing. All these machines and dieheads are built in large quantities on the most modern manufacturing lines. Jigs and fixtures are used as much as possible for all machining process, all rotary parts are ground to predetermined limits of accuracy, and all slides are planed and scraped to true surface plates. Special attention is paid to the material entering into the construction of all their machines, and its quality is kept strictly up to standard by continual tests and inspection carried out in their own chemical laboratory.

Messrs. Alfred Herbert, Ltd., take great pleasure in showing their works, and explaining their methods of manufacturing to any one interested, and visitors from all parts of the world are cordially invited. In addition to being manufacturers of the machines mentioned above, they are large dealers in all other types of machine tools, being selling agents for many of the leading makers in Great Britain and America.

The firm claim to be in a position to supply practically every type of metal-working machine or accessory required in an engineering workshop, and being makers and actual users of machine tools in their own factories, have an ever accumulating supply of experience to guide them in their selection of the best machines to suit their clients.

All the branch offices of Messrs. Alfred Herbert, Limited, are under the management of men who have been trained in their own works and are fully capable of dealing with all points connected with the selection, installation, and output of metal-working machinery. Their principal office in Japan is situated at No. 4, Yamashita-cho, Yokohama. Here they have a large showroom and warehouse where many machines and small tools are always carried in stock. A picture of this office and showroom accompanies this article.

The office system of the firm is thoroughly up to date. The many thousand small tools in stock are carefully tabulated on cards so that it is possible at any moment to ascertain the exact quantities of any goods in stock. Complete stock lists are sent to their branch offices and representatives every week, which enables their salesmen to quickly advise customers of the goods available for immediate delivery. They are one of the few foreign firms in Japan who are using the Japanese typewriter. Although a slow and cumbersome machine compared with the English typewriter, they claim that the uniform style and neatness of the letters produced gives a tone to their correspondence which is difficult to obtain when letters are written by hand. Another interesting machine used in the office is a dictaphone and the necessary transcribing machines. By the use of the dictaphone, the manager finds that he can get his correspondence off his mind any time of the day or night regardless of whether his stenographer is there or not.

One room is set apart for commercial photography. Here is installed a photostat, which is a large camera specially made for commercial work, the photograph being taken direct onto the paper and developed and fixed in the machine, the whole process being

completed in a very few minutes. Specifications, drawings, letters, catalogue illustrations, and documents of all kinds are quickly and accurately copied on this machine and consequently a great saving in time is effected. The office in Tokyo is situated at No. 18, Yamashita-cho, Kyobashiku. Here a representative stock of small tools is carried so that customers in Tokyo can inspect samples of their goods without having to visit Yokohama. A capable Japanese salesman is in charge who, with a number of assistants, thoroughly covers the Tokyo district. Being in close proximity to Yokohama, Messrs. Alfred Herbert, Ltd., can quickly draw upon their head office for special assistance or advice. In Osaka they have a large office and showroom at 98-1 Kami 2-chome, Sonezaki-cho, Kitaku. It is controlled by a British engineer who has a capable staff of salesmen under him. In addition to carrying a representative stock of small tools, a number of machines are exhibited at this office, and as the men in charge are kept fully posted regarding machines available and prices they are in a position to deal fully with all business in the western portion of Japan.

Owing to the rapid progress which is being made in the Kyushu Island of Japan, Messrs. Alfred Herbert, Ltd., have just opened a new office in Kokura, in order to give better service to their customers in that part of the country. Machines supplied by the firm are to be found in all the Government dockyards and arsenals in Japan, in all the large engineering works, and in a great number of the smaller ones. Many Japanese engineers travelling in England have visited their works and have been given an opportunity of studying their machines and their methods of manufacturing them, and a cordial invitation is always extended to those interested to do likewise.

In addition to representing their own works in Japan Messrs. Alfred Herbert, Ltd., are agents for the following British and American concerns: Ajax Manufacturing Co., Cleveland, O., U. S. A., Forging Machinery; Alldays & Onions Pneumatic Eng. Co., Ltd., Birmingham, England, Furnaces and Pneumatic Hammers; American Machine Tool Co., Hackettstown, N. J., U. S. A., Machine Tools; Arundel & Co., Stockport, England, Thread Milling Machines and Cutters; Atlas Press Co., Kalamazoo, U. S. A., Arbor Presses; "Auto" Recorder Co., Leicester, England, CO₂ Recorders; Baush Machine Tool Co., Springfield, Mass., U. S. A., Multiple Spindle Drilling Machines; Bilton Machine Tool Co., Bridgeport, Conn., U. S. A., Machine Tools; Beaudery & Co., Inc., Boston, Mass., U. S. A., Power Hammers; Borden Company, Warner, O., U. S. A.,



MESSRS. ALFRED HERBERT, LIMITED: A SECTION OF THE YOKOHAMA MACHINERY WAREHOUSE — THE OSAKA BRANCH OFFICE —
THE TOKYO OFFICE — THE YOKOHAMA HEAD OFFICE

Stock and Dies; N. P. Bowsher Co., South Bend, Indiana, U. S. A., Balancing Ways; Henry Broadbent, Ltd., Sowerby Bridge, England, Machine Tools; Broom Wade, Ltd., High Wycombe, England, Air Compressors; Davis, Brown & Sons, Ltd., Huddersfield, England, Bevel Gear Generators; Carborundum Company, Niagara Falls, U. S. A., Grinding Wheels and All Kinds of Abrasive Products; Champion Tool Works Co., Cincinnati, O., U. S. A., Lathes; James Clarke, Jr., Electric Co., Louisville, Ky., U. S. A., Portable Electric Tools; Cleveland Planer Works, Cleveland, O., U. S. A., Open Side Planer; Cochrane-Bly Co., Rochester, N. Y., U. S. A., Sawing Machines and Universal Shaping Machines; Commercial Camera Co., Rochester, N. Y., U. S. A., Commercial Photographing Machines; Dill Machine Co., Philadelphia, Pa., U. S. A., Slotting Machines; Drummond Bros., Ltd., Guildford, Machine Tools; De Mooy Machine Co., Cleveland, O., U. S. A., Drilling Machines; Fellows Gear Shaper Co., Springfield, Vermont, U. S. A., Gear Cutting Machines; L. Gardner & Sons, Ltd., Patricroft, Manchester, Crank Pin Turning Machines; Garvin Machine Co., New York, Machine Tools; John Hands & Son, Ltd., Birmingham, England, Presses; Hardinge Bros., Inc., Ravenswood, U. S. A., Precision Machines and Watchmen's Clocks; Joshua Heap & Co., Ltd., Ashton-Under-Lyne, Screwing Machines; Holbrook & Sons, London, England, Machine Tools; H. W. Kearns & Co., Ltd., Manchester, England, Boring Machines; Lapointe Machine Tool Co., Hudson, Mass., U. S. A., Broaching Machines; Manlove, Allott & Co., Ltd., Nottingham, England, Oil Separators; New Britain Machine Co., New Britain, Conn., U. S. A., Chucking Machines; Napier Saw Works, Springfield, Mass., U. S. A., Hack Saw Blades; Narragansett Machine Co., Pawtucket, R. I., U. S. A., Drill Chucks; George Oldham Son & Co., Philadelphia, Pa., U. S. A., Pneumatic Tools; Oliver Instrument Co., Detroit, Mich., U. S. A., Sawing, Filing and Lapping Machinery; Peerless Belt Lacing Machine Co., Philadelphia, Pa., U. S. A., Belt Lacing Machines; Plank Flexible Shaft Machine Co., Grand Rapids, Mich., U. S. A., Flexible Shafting and Outputs; Racine Tool & Machine Co., Racine, Wis., U. S. A., Hack Sawing Machines; Reading Chain Block Co., Reading, Penn., U. S. A., Chain Blocks; Rudge Whitworth, Ltd., Coventry, England, "Eternite" Caschardening Mixture; W. J. Savage & Co., Inc., Knoxville, Tenn., U. S. A., Sheet Metal Cutting Machines; Sibley Machine Tool Co., South Bend, Ind., U. S. A., Drilling Machines; J. T. Slocumb Co., Provi-

dence, R. I., U. S. A., Micrometers; Springfield Machine Tool Co., Springfield, O., U. S. A., Machine Tools.

One of their most important agencies is that of the Carborundum Co. of Niagara Falls, U. S. A., comprising as it does a complete line of abrasive material for all purposes. Grinding wheels, abrasive cloth and paper, abrasive grains and stone suitable for the metal, woodworking, leather, glass, and stone trades, etc., are made by the Carborundum Co., and are stocked in Yokohama.

Another well known American firm who have placed their Japanese business in the hands of Alfred Herbert, Ltd., is the J. T. Slocumb Co., of Providence, U. S. A. The company manufacture precision measuring tools of a very high order and their products are known all over the world.

GADELIUS & CO.

THIS firm is of Swedish nationality, the proprietor being Mr. K. Gadelius of Stockholm, who, however, is at present a resident of Tokyo, Japan. Its activities are strictly confined to Japan, where the office was opened in January, 1907. Previous to this Mr. Gadelius made several business visits to the Far East, from 1895 onwards, to gain the necessary experience of Eastern requirements, so that when the firm formally opened its operations, its principal was well acquainted with market conditions.

The development of Swedish interests in Japan, through the agency of Messrs. Gadelius & Co., is attributable to the tremendous industrial expansion which has taken place in Sweden since the latter part of the nineteenth century. Sweden has natural resources, principally of iron, timber, and cheap water power, second to none in the world, and the development of these resources, followed by the rapid growth of all industries associated with them, necessarily gave the impulse to Swedish manufacturers to seek wider markets for their trade and commerce. It was this impulse, and Mr. Gadelius' recognition of the wide field in Japan, that led to the establishment of his business in Tokyo. During the first few years the firm made steel and iron its specialties, but as the industrial and engineering sciences of Sweden, in various specialties, were brought to the same level of excellence as those of larger and more developed countries of the world, the firm gradually brought its engineering department to the front. To-day Messrs. Gadelius & Co. represent some of the largest manufacturers of Swedish specialties which have gained their reputations in the markets of the world.

The machinery business of Messrs. Gadelius & Co. comprises three different classes, namely:

Mining and Metallurgy: Swedish diamond boring machines, Atlas pneumatic rock drills, Ludwigsbergs pumps, Gröndal's ore flotation plants, concentrating and briquetting plants, Ramén's chloridising roasting plants, etc.

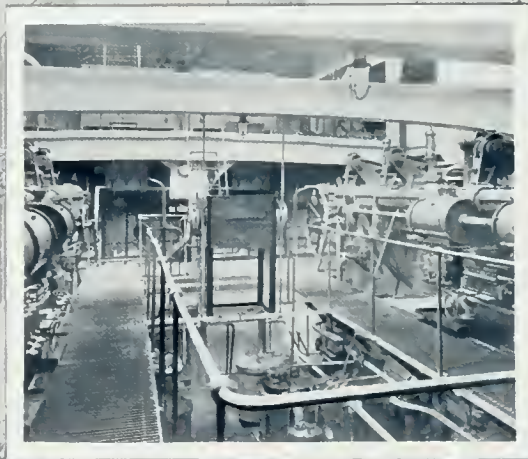
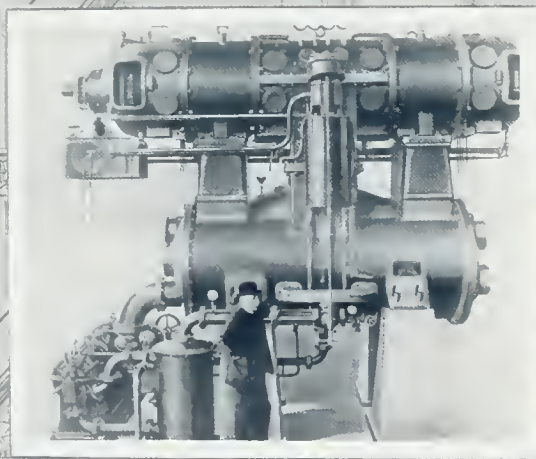
Power Supply: Stal Steam Turbo-Generators, Polar Diesel motors, Bolinders oil motors, Penta motors, Nydqvist & Holms water turbines, etc.

Miscellaneous: Archns match-making machinery, Bolinders wood-working machines, Ludwigsbergs high-pressure pumps, Mono combustion gases controlling apparatus, etc.

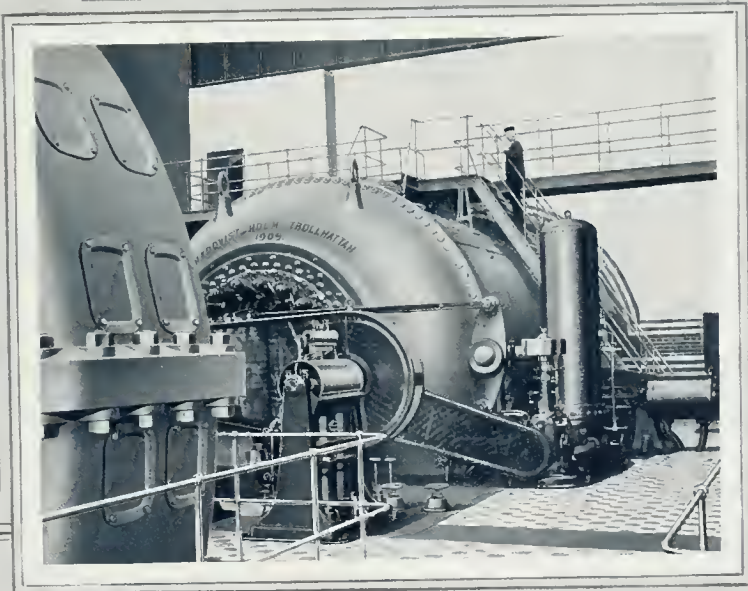
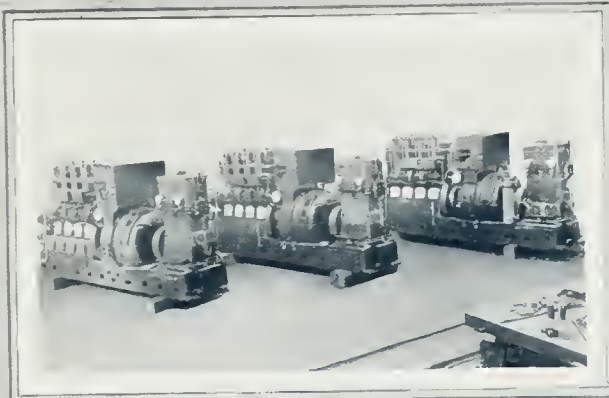
Sweden is a very old mining country, and it is only natural that the manufacturers of that country should be producing superior machinery for mining and kindred purposes. The Swedish Diamond Boring Company have been makers of boring machines for the past thirty years, and their drills are recognised for their efficiency in conjunction with simplicity in design, making them easy for anybody to handle. The good Swedish material of which they are made gives them the advantage of light weight. These drills have easily found their way to the larger mining companies of Japan, and the same distinct success in the Japanese market has been gained by the Atlas Rock Drills. The manufacturers of these tools have a still older experience and their product has gained a world-wide reputation.

Among metallurgical inventions in Sweden those of Dr. Gröndal and Engineer Ramén are noteworthy. The former's efforts extending over many years, for the successful crushing, concentrating, and briquetting of low-grade and impure ores, have met with pronounced success, as is shown by the many plants that have been erected after his design and fitted with his machines, not only in Sweden but also in other countries. Mr. Ramén's chloridising roasting process for sulphide pyrite cinders is to be considered as a revolutionary process in the field of extraction processes of copper and other metals. The invention not only diminishes the cost of such a process, but makes it also possible to successfully extract a larger percentage of copper, as well as other valuable metals in the ore, and, furthermore, the residue obtained constitutes an iron ore of the very best quality.

In the line of power supply machinery Sweden at an earlier stage did not bring out anything of special value until the development of the enormous water power existing in that country gave her engineers a large field for their energy and skill. Some of the largest water turbines in existence are now produced in Sweden, and the Swedish manufacturer in this line is known everywhere. The firm of Nydqvist & Holms of Trollhättan is one of the best known water turbine makers, and one represented in Japan by Messrs. Gadelius &



GADIELIUS & CO.: MOTOR SCHOONER "CITY OF PORTLAND," FITTED WITH 640 B. H. P. BOLINDERS MOTORS—M. S. "HAMLET," FITTED WITH 3,300 B. H. P. DIESEL-POLAR MOTORS—STAL TURBO GENERATOR, 1,500 K. W.—MOTOR ROOM OF M. S. "HAMLET"



GADELIUS & CO.: BOLINDERS WOOD-WORKING MACHINES, LOG FRAME—LUDWIGSBERGS MOTOR FIRE ENGINE WORKING THROUGH SIX PIECES OF HOSE—LUDWIGSBERGS AIR COMPRESSOR AGGREGATES FOR SUBMARINES—ATLAS ROCK DRILL (TYPE "CYCLOP" ROCK DRILL WITH TRIPOD)—NYDQVIST & HOLMS WATER TURBINE (12,500 H. P. TURBINE DELIVERED TO THE SWEDISH GOVERNMENT)



THOS. FIRTH & SONS, LTD.: STAMPS AND OTHER MINING BATTERY PARTS AND LOCOMOTIVE DRIVING WHEELS MANUFACTURED BY THE FIRM

Co. An accompanying illustration shows a 12,500 H. P. aggregate, manufactured by them for the Swedish Government. In steam power the great cultured countries for a long time were ahead as to cheapness and efficiency of power, and although the steam turbine invented by the Swedish engineer, Mr. de Laval, was the very first commercially successful steam turbine, it was soon overruled by English and American manufacturers. In the last ten years, however, a Swedish engineer, Mr. Ljungström, has succeeded in inventing a steam turbine which, in efficiency and economy, has created a record. The turbine called Stal, composed by the first characters of the company, Svenska Turbinfabriks Aktiebolaget Ljungström, is already too well known to need further comment. It has in Japan, as in other countries, been received with great interest. License rights, as well as engines for both stationary use and for ship-driving purposes, have been sold to large concerns here. The oil-engine industry of Sweden has for many years had a leading position. In this branch Messrs. Gadelius & Co. represent such famous

factories as the Bolinders and the Polar Diesel Companies, whose engines are used and appreciated all over the world. Sweden has also a unique position in regard to the match industry, being a large manufacturer of matches as well as of machines for the match industry.

In Japan the blacksmith's and carpenter's toolmakers have for a long time been familiar with the use of Swedish steel and iron. The splendid ore of the Swedish iron mines, and, furthermore, the purifying of the same by means of charcoal as practised in Sweden, gave this country a unique standing in the iron and steel market, one which, in certain lines, has up to now been without competition. In Japan the cutlery industry maintains very high standards, and the high quality of Swedish steel—its nature as charcoal steel exceedingly well suits the Japanese blacksmith—has opened its way all over the country. Besides, there is, of course, in a country like Japan, with its important industries, a large demand for different purposes, for a middle high class product like the Swedish charcoal steel, and the import

is therefore not small. Much the greater part of this import is carried on by Messrs. Gadelius & Co.

The offices of Messrs. Gadelius & Co. are at No. 41, Tsukiji Akashi-cho, Kyobashiku, Tokyo, at No. 40, Uramachi, Kobé, and at No. 44 Skeppsbron, Stockholm.

THOS. FIRTH & SONS, LIMITED

THIS famous Sheffield house is prominent in the markets of Japan, and through the representation of Mr. A. J. Lefroy, it has placed a large number of valuable orders in a field where, if the demand, owing to the rapid industrial expansion of Japan, is strong, the competition is none the less keen. Thos. Firth & Sons, Ltd., own the Norfolk Works at Sheffield, from which are turned out all classes of mining machinery, tools and tool steel, manganese and other special steel castings, aircraft steels, and the Firth "stainless cutlery steels." To enumerate all the products of these famous Norfolk Works is not within the scope of this article. It is sufficient to say that Thos. Firth & Sons, Ltd., have given the most careful study to the varying conditions



ARTHUR BALFOUR CO., LTD.: INTERIOR OF CRUCIBLE STEEL MELTING DEPARTMENT—SAWING A STEEL BAR TO LENGTH FOR TWIST DRILLS—(CENTRE) ELECTRIC FURNACE—INSPECTION DEPARTMENT IN TWIST DRILL AND CUTTER WORKS—TWIST DRILL AND CUTTER HARDENING SHOP—THE TURNING OF TWIST DRILLS—A FEW OF THE MILLING MACHINES IN ONE OF THE BAYS ENGAGED IN PRODUCING MILL CUTTERS, ETC.—HAMMERING A BAR OF STEEL

of foreign markets, and turn out machinery, steel, tools and parts that meet with general favour. This is so in Japan, which has become an exceedingly valuable market for the careful manufacturer. The mining industry is developing rapidly, and there is a strong call for such high-grade products as those from the Norfolk Works. The same is true of the engineering trades, from which there is a great demand for tool and machine steel, machinery and parts, and special grades of steel.

Thos. Firth & Sons, Ltd., are noted for their attention to the requirements of the trades and industries which are showing the greatest expansion in Japan, and their enterprise in being directly represented in the market, in conformity with a policy that has given them branches and agencies in all parts of the world, has met with all success. The "stainless" cutlery steel produced at the Norfolk Works is the result of a discovery made in 1913, the development of which has given Thos. Firth & Sons, Ltd., a foremost place in the ranks of contributors to metallurgic science, and they have also made valuable improvements in aircraft steel manufacture.

The company's Japan office is under the direction of Mr. Lefroy, and is in the Mitsubishi Building at Tokyo.

ARTHUR BALFOUR & CO., LTD. (DANNE-MORA STEEL WORKS, SHEFFIELD, ENGLAND)

THE city of Sheffield, England, is well known the world over for the excellence of its products, chief amongst these being the manufacture of High Speed and Crucible Tool Steels.

One of the firms that have contributed largely to the prestige of the famous city, by this special industry, is that of Arthur Balfour & Co., Ltd.

This business was established in 1865, and from the commencement was marked by an almost uninterrupted growth, the works being enlarged or reconstructed from time to time to meet the increased demands made upon them.

The firm became well known for the excellent quality of its products in Great Britain and on the Continent of Europe, but it was not until the present Managing Director, Mr. Arthur Balfour, joined the Directorate, thirty years ago, that the active policy of extension on a large scale was inaugurated in regard to the overseas markets, and that the firm attained its world-wide renown as manufacturers of high class Crucible Tool Steels, etc. Mr. Arthur Balfour personally visited the Far East, penetrating places well off the beaten track, and accumulated



TOKYO BRANCH OFFICE OF KAWAKITA ELECTRIC CO., LTD.

information valuable to the requirements of tool steel users. This became manifest by the continued extension of the works in Sheffield, and to-day, not only do the firm own their original plant, but the increase of business and the pressure on the then existing resources, necessitated the erection of a branch works in another portion of the city, and more recently, an up-to-date works in another manufacture of high speed engineers' tools, including twist drills, milling cutters, reamers and other small tools of precision.

Arthur Balfour & Co., Ltd., have been conspicuous in the advances made in tool steel manufacture of recent years, notably in connection with High Speed Steel. Their "Capital" trademark used with their High Speed Steels, is well known in the Far East, as also their brands of steel, *viz.*: "New Capital," "Sento Capital," and "Ultra Capital." The last named quality is the steel which will give the maximum of efficiency at high speeds, especially on cast iron and hard materials.

The Crucible Cast Steels of this company are known and appreciated in Government workshops, railway workshops, shipyards, engineering shops, mines, etc., in all the principal markets, and they have held for many years the British Admiralty contract for ordinary crucible steel for engineers' tools. The manufacture of special steels for various purposes, such as mint dies, motor car parts, electrical resistances, magnets, etc., claims the company's particular attention.

Circular saws (both high speed and carbon steel) for metal or wood, handsaws, websaws, hacksaws, rubber knives, parangs, etc., are extensively manufactured. Other specialties are woodworking tools and knives, leather knives, hammers, picks, and files. Several grades of files are made, including their special "D. S. W." Brand, the file with the sharp teeth and long life.

In these days of chemistry and science, it is interesting to note that Arthur Balfour & Co., Ltd., employ a staff of fully qualified chemists. Their laboratory is one of the finest of its type in Sheffield, equipped with the latest appliances for analytical, microscopical, and pyrometric research, and the careful examination on a scientific basis, of both raw materials and finished products enables them to maintain their qualities to their well known high standards.

The manufacturing and commercial sides of this business have been highly organised, and direct representation by resident officials in all the important countries of the world, enable Arthur Balfour & Co., Ltd., to meet the special conditions prevailing in any of their markets, or the special requirements of individual customers.

They have their own staffs and offices in the following countries:

Japan—Tokyo and Osaka.

China—Shanghai.

Australia—Melbourne, Sydney, Kalgoorlie, and Fremantle.

Canada—Montreal and Toronto.

South Africa—Johannesburg.



MORITANI & CO.: (LEFT UPPER) ONE OF THE FIRM'S GODOWNS—(LEFT LOWER) HEAD OFFICE, TOKYO—(RIGHT) KYUSHU BRANCH

France—Paris.

Great Britain—Sheffield, London, Glasgow, and Newcastle-on-Tyne.

Agencies and stocks are held also in Adelaide, Brisbane, and Wellington in Australasia; Bombay and Calcutta in India; Winnipeg and Vancouver in Canada; in the United States of America, Mexico, and on the continent of Europe.

The offices of their Far Eastern branches are as follows:

Japan—Tokyo, No. 1 Minami Saeki-cho, Kyobashi-ku. Osaka, No. 35 Honden, Nibancho, Nishi-ku.

China—Shanghai, No. 8 Museum Road.

The trademarks of this company, *viz.*: "Capital," "An Eagle on a Globe," and "Griffin," are recognised in all parts of the world as a standard of high quality, and the unique experience gained during the half-century of existence, together with close supervision throughout every stage of manufacture of the products of this firm, ensures the consistently high quality, the maximum of life, and the efficiency of the steel or tools, which give satisfaction to the practical user.

THE KAWAKITA ELECTRIC CO., LIMITED

PROMINENT among the electrical engineering enterprises of Japan is the well known Osaka company, the Kawakita Denki Kabushiki Kaisha, or Kawakita Electric Co., Ltd. This large concern has invested millions of yen in the development of hydro-electric and other electricity-generating schemes, and is also carrying on an extensive manufacturing industry, embracing practically all lines of electrical machinery, appliances, and accessories.

In the development of its manufacturing enterprises and the distribution and sale of its products, the company has established branches in various important centres of Japan. Offices and salesrooms on a large scale are maintained at No. 19, Shinsakana-cho, Kyobashi-ku, Tokyo. Here a most complete stock of dynamos, motors, transformers, switch-boards, fan motors and other ventilating appliances, meters, lamps, etc., is on display. The company's reputation as a manufacturer has become known not only throughout Japan, but abroad, and already a substantial export trade is being

done in many lines that previously were imported to Japan. Some idea of the extent of the company's manufacturing capacity may be gathered from the fact that the works turn out goods to the value of close on Yen 4,000,000 per annum. An interesting description of this enterprise appears in the Osaka Industrial Section of this volume, see page 592.

MORITANI & CO.

THIS firm was established on September 11, 1901, by its present principal, Mr. Gohei Moritani, who may justly claim to be one of the most experienced men in Japan in the iron and steel, and general machinery business. Messrs. Moritani & Co. do an enviable volume of trade, which runs to about Yen 8,000,000 per annum, but this figure is only indicative of present activities. The history of the business is one of continual and steady expansion, and there is no doubt but that in the immediate future the annual turnover will be much larger.

The success which has attended the firm is mainly due to Mr. Moritani's sound

organisation and the experience which he has had in all branches of the trade. Moritani & Co. may be described as general importers and exporters of machinery, metals, and hardware. They are agents for such well known concerns as the Tokyo Rope Manufacturing Co., Ltd., the Meiden-sha Co. (Electric Works), Oriental Rubber Co., Kawasaki Dockyard Co., Japan Hide & Leather Co., Asano Slate Co., Kōbukuro Iron Works, Imperial Fire-proof Brick Co., the Oriental Paint Manufacturing Co., and the Osaka Wire Netting Co. The manufactures of these different concerns, together with other lines, including imported goods, are distributed throughout Japan by Messrs. Moritani & Co., who have a strong selling organisation, working through the following branches: Osaka, Kokura, Naokata, Fukushima, Taira, Iwaki, Kanazawa, Sapporo, and Taikoku. Furthermore, the firm exports very largely to China, Europe, America, and the South Sea and South Pacific islands.

The business is divided into well organised departments, as follows:

No. 1, Mechanical Department: Steam engines, -boilers, -pumps, -hammers, -heaters, -locomotive engines, -presses, -pipes, -winding engines, -endless winding engines, and other steam machines; gas engines, gas plants, -tanks, -pipes, etc. Oil engines, oil tanks. Air compressors, -pumps, -vacuum engines; wire ropes, cotton ropes, manila ropes, fans for mines, tramway machines, chilled castings, cast steel and cast iron products, cars, wagons, iron bridges, copper and gun metal cast products, malleable castings, girder works, cranes, rails, steel or iron pipes, steel or iron plates, steel or iron rods, water turbines, mine selecting machines, crushers, wire nettings, winches, special cotton belts, etc.

No. 2, Electrical Department: A. C. Generators—Single phase and 3-phase A. C. Generators, engine type A. C. generator and

motor generator sets for frequency changer, etc., high frequency generators for wireless telegraph and telephone, synchronous motors, all necessary equipments for A. C. generator sets. D. C. Generators—Shunt or compound series generators with or without interpoles, dynamo motor and rotary converters, motor generator sets with D. C. or A. C. motors, engine type D. C. generators, heavy current D. C. generators for electro-chemical purposes, all necessary equipments for D. C. generator sets. Induction Motors—Single phase and 3-phase induction motors with squirrel cage rotor or wound rotor, semi-enclosed motors for drip proof and dust proof, totally enclosed motor for water proof, etc., variable speed induction motors with special winding on starter or special resistance in rotor circuit, speed regulators, starters, controllers, compensators, all necessary equipments for induction motors. D. C. Motors—Shunt or compound series motors with or without interpoles, semi-enclosed motors for drip proof and dust proof, ventilated enclosed motors for dust proof, gas proof, and rain proof, totally enclosed motor for water proof, etc., starters, speed regulators, all necessary equipments for D. C. motors sets. Transformers—Single phase and 3-phase transformers for lighting and power use, high frequency transformers for wireless telegraph, extra high tension transformers for testing use, heavy current transformers for electric furnaces, single phase and 3-phase auto transformers for line voltage controlling, single phase and 3-phase induction regulators for regulating voltages, all necessary equipments for transformers. Switch board, etc.—All kinds of switch boards and switch gears, switch board motors and instrument transformers, protecting devices and indicating devices, etc. Miscellaneous—Fan motors, repairing materials, necessary tools for setting machines, electric meters, copper and steel wires, insulated wires, cables, cords, cars, locomotive engines,

pumps, cranes, winding engines, telephones, telegraphs, fittings for electric lighting, line materials for electric cars, electric heaters, illumination works.

No. 3, Rubber Department: Rubber belting, valves, packings, sheets, hoses, tubing, mats, gloves, pneumatic and solid rubber tyres for automobiles, carriages, and bicycles; ebonite products, and all other kinds of rubber products.

No. 4, Leather Department: Leather belts (single, double, and triple), link or chain leather belts, round leather belts, water-proof leather belts, leather pickers, buffalo pickers, leather packings (hydraulic rams or U packings, etc.), leather hoses, leather laces, rawhide pinions, rawhide pins, rawhide ropes, belt cements, adhesive greases, waxes, buttons, button plates, ovals and oval plates, alligator belt lacings, belt hooks, round belt hooks, belt lacing needles, all kinds of machinery leather.

No. 5, Department of Architectural Materials: Patented ornamental tiles, patented fire-and acid-proof bricks, patented zinc and gas retorts, patented Asano slates (cement asbestos plates), patented Santoku paints (originally, fire proof, water proof, and ship bottom paints), common paints, *wotaito* (patented by Japanese and English Governments) to make cement water proof, patented quick *wotaito* (when water gushes out at cement or concrete works), patented safe *tailo* (which makes wood fire proof), compressed cork plates for covering floor, best diatom earth which is produced in Akita, creosotes and creosotum for wood, etc.

The capital employed by the firm is Yen 1,000,000. Mr. Gohei Moritani is the principal of the business and the General Manager is Mr. Yosaburo Inoue. A staff of nearly 100 experts and salesmen, etc., is employed. The head office of Moritani & Co. is at No. 1 Sanjukkenbori, Nichome, Kyobashi-ku, Tokyo, where the firm has extensive godowns.





AGRICULTURE AND COMMERCE DEPARTMENT BUILDING

XV. AGRICULTURE

GENERAL CONSIDERATIONS—INTENSIVE CULTIVATION—THE FARMER'S LOT—AGRICULTURAL PRODUCTIVITY—STOCK-BREEDING. THE RICE INDUSTRY: ORIGIN AND DEVELOPMENT OF RICE CULTURE—ECONOMIC IMPORTANCE OF THE RICE INDUSTRY DURING FEUDAL TIMES—RICE IN THE MODERN MARKET AND IN THE NATIONAL ECONOMY—RICE CULTURE, ITS EXTENT AND VARIETIES—PRODUCTION AND CONSUMPTION OF RICE IN JAPAN—RELATION OF THE PRICE TO OTHER COMMODITIES AND TO WAGES—HOW RICE IS GROWN IN JAPAN—CONCLUSION. CHEMICAL INDUSTRIES—COMMERCIAL NOTICES

DESPITE the mountainous nature of the country and the consequently limited area of arable land agriculture is and always has been Japan's most important industry, occupying, as it does, more than seventy per cent of the people. The possession of a moderate and humid climate enhances the natural productivity of the alluvial, volcanic soil of the plains and valleys to an extent that largely compensates for restriction of agricultural area; and although storms are expected in early summer and autumn, of a severity frequently destructive to the rice crops, the remainder of the year is free from such dangers and growth is everywhere rapid and luxuriant, accounting for rich harvests and the verdant appearance of the country.

Agriculture has always played an important part in the policies of successive rulers and governments and been steadily promoted as the foundation of national prosperity even from the remotest times. In the past it has proved as important a factor in the social structure of the country as it has in the economic situation; for, in Japan, the country parts show a much lower death rate than the cities, and Japan's best physique has always been recruited from the rural population. The sons of sturdy farmers form the backbone of the national army and navy, while the ranks of commerce and industry constantly depend on the agricultural districts for a supply of muscle, health, steadiness, and probity.

The remarkable extension of the Japanese Empire north and south affords every variety

of climate and a resultant variety of crops, the greater portion of the country easily producing two harvests a year, with a large average yield. The land produces enough to meet nearly the whole demand for provisions at home, as well as the needs of various industries, thus contributing immensely to the national welfare. In Japan, therefore, the commercial prosperity of the country is largely bound up with its agricultural progress, and the Government is always doing what it can to promote a more intensive as well as a more extensive cultivation of the soil by introducing more scientific methods and facilitating financial accommodation.

INTENSIVE CULTIVATION

THE steady and enormous increase of population in Japan and the small area of



RESERVOIR AT KOBÉ

| AREA CULTIVATED PER FAMILY | NUMBER OF FAMILIES | PERCENTAGE |
|---|--------------------|------------|
| Under 2 acres..... | 1,996,638 | 36.65 |
| Over 2 acres..... | 1,816,721 | 33.34 |
| Over 2 and a half acres..... | 1,086,871 | 19.95 |
| Over 5 acres..... | 332,224 | 6.09 |
| Over 7 and a half acres..... | 149,580 | 2.75 |
| Over 15 acres..... | 66,258 | 1.22 |
| Total farming population in families..... | 5,448,292 | 100.00 |

| LANDED FARMERS | TENANTS | BOTH OWNERS AND TENANTS | TOTAL FAMILIES |
|-----------------|-----------------|-------------------------|----------------|
| 1,728,692 (34%) | 1,517,520 (28%) | 2,202,008 (40%) | 5,448,220 |

arable land available necessitate an intensive system of cultivation. With the number of inhabitants to the square mile ten times greater than that of the United States, and with a smaller cultivable area than Great Britain together with a greater population, and with no adequate outlet for her surplus people, Japan is forced to till every foot of the soil, even to terracing the steep hillsides; all of which is done for the most part by manual labour, using rude and simple implements. Horses and oxen are coming into use to some extent, over two million of these animals now being so employed, and a few farmers have introduced foreign implements as far as possible, but the country as a whole is not suited to Western farming machinery. Out of a total population of some 57,000,000 in Japan proper, over 40,000,000 are living on the land, cultivating some 15,000,000 acres. Out of this total about 7,383,325 acres are paddy fields and 7,155,893 acres of upland, with some plains and pastures. The average

holding is about half an acre for each person, or two and one half acres per family; but in the north where the population is less dense, the average per family often rises even to seven and a half acres. These statements will be borne out by the first table on this page, illustrating the area under cultivation per family (1914).

The figures for 1915, 1916, and 1917 are fractionally less. Thus it is seen that by far the largest number, amounting to over seventy per cent of the total number of families, are cultivating less than two and a half acres, while those cultivating more than seven acres do not constitute four per cent of the agricultural population. Therefore it is only by double crops and subsidiary occupations that the average Japanese farmer can hope to make ends meet. These side industries chiefly comprise sericulture, tea, poultry, fishing and various handicrafts in straw and wood work, by which family earnings are increased, rendering poverty and destitution very rare among the farming portion of the community. Japanese farmers may be divided in four groups: those who are merely landowners; those who are landowners working a portion of their land themselves and renting the rest; those who cultivate all their own land and rent more; and lastly, those who are simply tenant farmers. The number thus occupied in 1914 with percentage of the total was as shown in the second table on this page.

In the years 1915, 1916, and 1917 there was only a fractional difference. From the above it appears that the number of farmers who own no land at all is about 28 per cent, while the number of those owning land and yet



WOODEN FLOW, OF THE STYLE MUCH USED TO-DAY

having no connection with agriculture is almost negligible. It is obvious, therefore, that the land is fairly evenly distributed.

THE FARMER'S LOT

THE lot of the Japanese farmer is not generally regarded as a desirable one, and there is a constant drift from rural to urban population. This tendency is especially marked among the younger members of the tenant farmers. The reason may lie in the fact that from 45 to 60 per cent of their crops has to go to the landlord for rent, and out of the balance they must pay heavily for the indispensable fertilizer. On what is left, even with the proceeds of their subsidiary labours, a life of privation is their only outlook. The peasant proprietors are usually better off. In addition to their own plots they may cultivate portions of land for the larger proprietors and make a fair living. The majority of these peasant proprietors, however, own only from two and a half to five acres, which they till with the assistance of the entire family. Taxes take about 16 per cent of their proceeds, and expenses in connection with cultivation, apart from labour, take about 23 per cent more, leaving a balance of about 61 per cent for wages, interest on capital, and profit. Then there are the landed proprietors who act as capitalists, letting out their land to tenants. These are a class that have supplanted the country gentry of the good old days, neither commanding the respect of their predecessors nor showing the same kindly feeling for their tenants. When feudalism came to an end in 1872 the feudal lords and the samurai were compelled to relinquish their domains to the Imperial Government, but no allotment of lands could be made as in former times. Consequently the title to lands was given to the farmer who happened to be in possession. Thus while the nobility and the samurai lost their lands, the farmer retained his and became a proprietor, and after a Government survey certificates or deeds of ownership were given to the farmers in possession. But even the most fortunate of these landowners was not in possession of more than 75 acres and most of them not more than 25 acres. The tenant always pays the landlord in rice. The rate for paddy fields is about 57 per cent of the total yield, while the rate for upland fields is 44 per cent and paid generally in cash. The taxes are paid by the landowners, and as these amount to about 33 per cent of the rent, the actual income to owners is not large. As the holdings are small, however, the profit to the tenant is not sufficient to maintain him without other work. Japan has no special legislation as to agricultural holdings as England has. In the civil code a long lease of

agrarian land is defined as running from twenty to fifty years, though most of the tenants hold land from ten to twelve years on verbal contract; but now that the agrarian population is turning toward the city tenants are more difficult to get and something will have to be done to improve the lot of the farmer. The present policy is to increase the area of holdings without decreasing intensity of cultivation and amount of average yield per acre.

Another interesting feature of the agrarian problem is the Japanese economy of human waste in the cultivation of the soil, which supplies the greater portion of the vast amount of fertilizer required to keep the



A JAPANESE FARMER'S IRRIGATION WHEEL

constantly depleted soil up to the utmost possible limit of productivity. The annual consumption of all kinds of fertilizer in Japan is valued at about 220,000,000 yen. Besides nightsoil the principal fertilizers are stable manure, vegetable ash, fish guano, oilcake, rice bran, with large imports of phosphate, sulphate of ammonia, and Chilean nitrate. The Japanese are also utilising nitrogen derived by electrical process from the atmosphere.

An unfortunate aspect of the farmer's lot in Japan is the way in which he is preyed upon by usurers, who extract from 10 to 20 per cent interest on loans now totalling over 992,225,000 yen, which the Government is offering accommodations to reduce.

AGRICULTURAL PRODUCTIVITY

OF the total area of Japan only some 15 per cent is under cultivation, and of this by far the most valuable are the paddy fields which take up one-half of the total. Paddy land,

being thus far more productive than that used for dry crops, commands a proportionately high rental, which is usually from two to three times as great as for upland fields, but for which the higher rate of production in a great measure compensates. The average yield of rice per acre is about thirty-three bushels, which by intensive cultivation may be increased to forty; and in the south where two crops a year are possible, the yield may be increased to sixty per acre. On dry land barley may be grown at twenty bushels to the acre. Though most of the arable land of the Empire seems to be under cultivation it is said that eight million acres more might easily be reclaimed for agricultural purposes. This process is already going on, while in many

| CEREALS | YEN |
|-------------------|----------------------|
| Rice..... | 966,449,000 |
| Barley..... | 63,334,000 |
| Rye..... | 74,210,000 |
| Wheat..... | 52,538,000 |
| Soy beans..... | 35,948,000 |
| Millet..... | 15,839,000 |
| Others..... | 38,098,000 |
| <i>Total.....</i> | <i>1,246,416,000</i> |

| INDUSTRIAL PRODUCTS | YEN |
|---------------------|-------------------|
| Rape..... | 12,481,000 |
| Tea..... | 14,498,000 |
| Tobacco leaf..... | 8,540,000 |
| Sugar cane..... | 4,633,000 |
| Rushes..... | 3,953,000 |
| Others..... | 21,521,000 |
| <i>Total.....</i> | <i>65,626,000</i> |

| HORTICULTURAL PRODUCTS | YEN |
|------------------------|--------------------|
| Fruits..... | 44,868,000 |
| Vegetables, etc..... | 151,946,000 |
| <i>Total.....</i> | <i>196,814,000</i> |

| COCOONS AND SILKWORMS | YEN |
|-----------------------|--------------------|
| Cocoons..... | 147,614,000 |
| Silkworm eggs..... | 16,577,000 |
| <i>Total.....</i> | <i>164,191,000</i> |

| LIVE-STOCK | YEN |
|----------------------------|-------------------|
| Domestic animals, etc..... | 22,461,000 |
| Poultry and products..... | 19,812,000 |
| <i>Total.....</i> | <i>42,273,000</i> |

| | |
|----------------------------------|--------------------------|
| Others..... | Yen 89,229,000 |
| <i>Grand Total Approximately</i> | <i>Yen 1,800,000,000</i> |

places single crops are fast giving way to two a year by irrigation and additional fertilizer. The system established by the Imperial Government for the readjustment of land and the granting of facilities to farmers has met with deserved success under able administration, increasing harvests by about 20 per cent and decreasing the necessity of labour to a proportionate extent. Most of the adjustments have consisted in bringing together scattered plots by reshaping the paddies and removing old boundaries, lessening the land taken up by dykes and paths as well as increasing the size of the average field. Nearly one million acres have thus been already improved, at a cost of 51,811,784 yen. About 65 per cent of the irrigation for rice fields comes from rivers, and the rest from reservoirs.

The annual returns for agriculture at present indicate a greatly increased productivity everywhere. The total annual value of agricultural products is over 1,800,000,000 yen, represented by the accompanying table.

As will be seen from the table, rice forms the chief agricultural product of Japan, accounting for about half of the total, while next are raw silk, rye, barley, vegetables, wheat, and soy beans, all of which have shown a remarkable increase during the last twenty years, during which time rice has increased 26 per cent, barley 28 per cent, rye 39 per cent, and wheat about 70 per cent. In horticulture and live-stock the development has also been quite marked. The table on this page indicates the rapid increase in agricultural products during the last fifteen years.

Since 1915, while there has been an increase of only 950,000 acres under rice, yielding an additional 12,500,000 bushels, the acreage under barley and wheat has decreased.

The three great agricultural staples of Japan, rice, tea, and silk, will be treated separately, but a brief account may here be given of the minor products and the uses to which they are put. Barley, next to rice, with which it is mixed, forms the staple food of the people. As it is about half the price of rice it is chiefly consumed among the poor, and large quantities are used for beer brewing, this grade of barley being grown from imported seed in Hokkaido. As much as 15 per cent of the barley crop



DIGGING BAMBOO SHOOTS FOR FOOD

is used in feeding cattle. A species known as "naked barley" is sown in paddy fields for harvesting immediately before the rice-planting season. Wheat is now becoming a crop of increasing importance to Japan, as it is fast getting to be a food of the people. It is grown as a winter crop in paddies and

upland fields in the colder districts. About 80 per cent of the yield is made into flour for bread and food pastes such as macaroni and vermicelli. At least one-quarter of the total of wheat consumed comes from the United States and Canada, but the increasing production at home promises to meet

| YEAR | ACRES | RICE | | ACRES | BARLEY, RYE, AND WHEAT | | RAW SILK |
|------|-----------|----------------|-------------|-----------|------------------------|-------------|------------|
| | | YIELD, BUSHELS | | | YIELD, BUSHELS | | POUNDS |
| 1901 | 7,119,193 | 234,572,170 | 33 Per Acre | 4,540,502 | 103,291,085 | 23 Per Acre | 14,308,274 |
| 1905 | 7,213,383 | 190,862,800 | 26 Per Acre | 4,543,805 | 93,679,295 | 21 Per Acre | 15,500,523 |
| 1910 | 7,373,600 | 233,166,880 | 31 Per Acre | 4,429,060 | 103,964,845 | 24 Per Acre | 36,751,130 |
| 1915 | 7,631,318 | 279,722,950 | 36 Per Acre | 4,529,573 | 118,907,210 | 26 Per Acre | 40,169,250 |

the demand of domestic flour mills in the near future, imports having largely declined in the last ten years. With the rise in standard of living the cultivation of such unpalatable cereals as millet and sorghum is decreasing. The soy bean, so much prized abroad as a cattle food, is used in Japan not only for human beings but in the manufacture of soy, soup, and *tofu*, or bean curd, a cheap, highly nutritious, and very popular article of diet. The residue is used as cattle feed, or as fertilizer, and sometimes oil is extracted from it. Soy beans form the principal upland crop of the summer months, and require less labour and fertilizer than other crops. The supply, however, is never equal to the demand, large importations coming from China. There is a great variety of beans grown in Japan, among which the more popular are small red beans, largely cultivated in Hokkaido, and used for cakes and confectionery, and boiled with rice on occasions of ceremony. There is also a large growth and consumption of peas, horse-beans, kidney beans and others, grown between crops after the rice is harvested in the paddies and before it in the upland fields.

There are two varieties of buckwheat, one sown in spring and the other in autumn. The flour from this grain is made into what is called *soba*, a kind of macaroni, one of the favourites among the cheaper foodstuffs of the country. The sweet potato is an important upland crop, cultivated chiefly in the southwestern part of the country. It is a popular food among the poorer classes, and in every town may be seen sweet potato ovens from which hungry passersby take a sen's worth to carry them on to a better meal. In some parts the children live on this food. The ordinary potato is also extensively cultivated, with increasing exports to Siberia, China, and the Philippines, though it is used for food at home almost as much as the sweet potato. Among special crops, rape seed covers the greatest area. Since the introduction of Western methods of house illumination the rape-seed oil is no longer used for that purpose, now finding its chief utilisation in cookery and lubrication, while oil cake of this seed is often used as nitrogenous fertilizer. Rape-seed oil also finds an increasing demand abroad. The tea plant demands exclusive use of the ground it occupies and requires careful cultivation, the chief districts being around Shizuoka, Miye, and Saitama districts. A very fine quality of indigo plant is cultivated in Japan, but owing to the invention of artificial indigo in Europe the crop declined, though since the European war it has been greatly revived, and the production is now

about 10,000 acres, yielding some 20,000,000 pounds a year. Cotton growing has made no headway owing to cheaper and superior imports from China, America, and India. Cotton has supplanted hemp as a material for cloth, and hemp is now used only for fishing nets and for rope making. Flax is grown for the most part in Hokkaido, where it now forms an important industry.

Tobacco is cultivated in every part of Japan except Hokkaido, the most important districts being Ibaraki, Tochigi, Fukushima, Okayama, and Hiroshima in the main island, Kagawa and Tokushima in Shikoku, and Kagoshima and Oita in Kyushu. As the manufacture and sale of tobacco is a Government monopoly the growers have to sell all their crop to the authorities of the Monopoly Bureau. The authorities exercise extreme care as to the cultivation and improvement of the crop, and great progress has been made in output and quality, the chief varieties being a native plant and the yellow American varieties. The following table will indicate the progress of the industry for the last fifteen years:

| YEAR | ACRES | YIELD, POUNDS | PAID, YEN | AVERAGE PRICE PER LB., YEN |
|------|--------|---------------|------------|----------------------------|
| 1901 | 91,800 | 110,077,510 | 7,720,610 | 0.07 |
| 1905 | 83,000 | 95,000,000 | 8,166,922 | 0.71 |
| 1910 | 71,966 | 91,847,081 | 10,617,607 | 0.93 |
| 1915 | 90,000 | 106,000,000 | 14,116,612 | 1.106 |
| 1916 | 76,944 | 128,175,000 | 13,311,386 | 0.857 |

The tobacco consumed in Japan is chiefly cigarettes, though a few cigars are made, but most of the latter used in Japan are imported. (See "Government Monopolies.")

Sugar cane is grown in the Luchu Islands and Formosa, the latter producing by far the greater quantity, though the crop there per acre is not yet more than half of what it is in Java. The subject will be found more fully treated under the heads of "Manufacturing Industries" and "The Sugar Industry." Rushes for the making of matting are largely cultivated in Japan, growing abundantly in swamp and paddy land. Peppermint is also an agricultural product of growing importance, the leaves being dried and distilled to make menthol and peppermint oil. Ginseng is a medical plant grown to some extent in Japan, but chiefly in Korea. The paper mulberry is grown for making paper, and can be profitably cultivated on slopes and river banks not suitable to other crops. Osiers for basket-making are also a useful crop, and braids are made from barley straw.



RICE FIELDS

STOCK-BREEDING

THE demand for horses and oxen as draught animals makes stock-breeding an industry of increasing importance in Japan, which the Government has greatly assisted by the stock-farms established in various parts of the country, especially in Hokkaido. The growing demand for a meat diet is also lending impetus to the breeding industry. Owing to the absence of suitable pasture lands and the ubiquity of rice fields, Japan has not been a great horse-breeding country. After the Russo-Japanese War, however, it was seen that the need of horses for army purposes was paramount, and consequently a Horse-breeding Bureau was established in 1906. At present some 1,500 foreign-bred stallions are kept for mating with native mares,

and the Army purchases about 5,000 of the progeny annually. The breeds imported are chiefly from Australia and England, and the table below will show that they are gradually replacing the native stock.

In much the same way horned cattle of the native breed are fast disappearing before imported or cross-breeds. In some respects this is to be regretted, as the native ox of Japan is a magnificent animal and as strong and docile as his proverbial mate abroad. The imported cattle first came from England, for the most part Devon, Ayrshire, and Shorthorn, but strains like the Holstein and Simmenthal are now being introduced as more suitable. Owing to the immense increase in dairy industries cows are now largely imported and bred for the sake of

milk, including some fine Jerseys. The Government has eight large stock-farms in Hokkaido, and there are many private ones elsewhere. The Government in every possible way encourages the breeding of horses and cattle, and when the difficulties to be encountered in the way of pasturage are considered, the progress made has been nothing short of remarkable. This statement will be borne out by the second table below showing the number of cattle in Japan.

No government in the world gives so much attention to the promotion of industry as the Japanese, and it is worthy of note that more is done for the encouragement of agriculture than for any other industry. The Hypothec Bank facilitates supply of capital for agricultural purposes, and the Coöperative Society Law promotes the formation of credit, purchase, sale, and productive associations, of which some eight thousand are already in operation. This assiduous care, combined with the inherited aptitude of the Japanese agriculturist, assures the position of agriculture in Japan for many years to come. The demand is always ahead of the supply, and with prices steadily rising, in spite of increasing outlay on land, the outlook for Japan's most important industry is decidedly favourable.

| YEAR | NATIVE HORSES | CROSS | FOREIGN | TOTAL |
|------|---------------|---------|---------|-----------|
| 1905 | 1,284,840 | 103,120 | 2,047 | 1,390,017 |
| 1910 | 1,242,921 | 281,199 | 27,036 | 1,551,156 |
| 1915 | 987,188 | 529,948 | 14,927 | 1,579,454 |

| YEAR | NATIVE HORNED CATTLE | CROSS | FOREIGN | TOTAL | SHEEP | GOATS | SWINE |
|------|----------------------|---------|---------|-----------|-------|--------|---------|
| 1905 | 1,167,610 | 189,520 | 20,219 | 1,286,116 | 3,590 | 72,121 | 228,204 |
| 1910 | 1,043,568 | 450,828 | 14,534 | 1,508,743 | 3,357 | 91,730 | 279,101 |
| 1915 | 987,188 | 529,948 | 14,927 | 1,579,454 | 2,771 | 95,323 | 332,465 |



RICE FIELD AT ARIMA, NEAR KOBÉ

THE RICE INDUSTRY

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RICE is the staple crop of Japanese agriculture, the national food of the people, and is widely cultivated throughout the length and breadth of the country. Without it Japanese agriculture could hardly be said to exist. The crop returns are eagerly studied by the financiers of the grain market, for its price regulates the prices of all the other necessities of life. The rice market is very sensitive to weather conditions, especially at the ripening season, when storms often upset the financial market, while dry weather is the source of economic disturbances in the rural communities. The paddy fields are watered from rivers and irrigation canals, and protected against inundation and floods by means of embankments and sluice gates. Hydraulic engineering also plays no small part in the success of rice culture. Agronomists are making their best efforts to increase the average yield of the paddy fields, and experiments are constantly being made from the agronomical as well as chemical standpoint to determine what varieties are best and give the largest yield. The principles of the new genetic science are being applied to rice culture, experiments especially in the search for early varieties suitable to northern Japan. The increase of yield, however, has not kept pace with the increase of population, and imports from Indo-China and elsewhere must make up the national deficiency. In good years the price falls so low that the country feels a kind of agricultural depression, such as is felt at times in England and other countries, and in such seasons, adjusting the price of rice becomes an important agrarian question. Granaries are in demand in the rural districts in which to store the surplus until the price goes up, while agricultural banks advance money to the owners of these granaries in order to aid the producers. Rice culture, nevertheless, is always on a small scale and farmers are never well off. However, most of them find it difficult to subsist on any other diet than their cherished rice, hence, ever since the foundation of the Empire, 2,600 years ago, rice culture has been handed down from generation to generation as the most important agricultural occupation of the country. The future welfare and strength of Japan, not to speak of advancement in civilisation, depend much upon how the question of rice culture is solved, for if the present system continues the rural population will never get beyond the horizon of a small-scale rice culture and a low standard of living.



SCENES DURING THE PLANTING SEASON

ORIGIN AND DEVELOPMENT OF RICE CULTURE

RICE was the chief agricultural product at the beginning of authentic Japanese history, no account coming down to us that the people were engaged in any other occupation than

that of agriculture. The ancestors of the Japanese people must have already passed the nomadic stage of life before they settled in their adopted island country, where their economic life began with the cultivation of rice. When the paddy fields yielded abun-

dantly, the founders of the Empire were pleased to call the country "the land of full crops," a land where their descendants could multiply and dominate. From such traditional facts it may be inferred that the original home of the Japanese people was somewhere in the southern islands of Asia, not in the highlands of the continent, where the subsistence of the people was derived from stock-raising as in the case of the present Mongolian Tartars. Rice has thus been the national food of the people of Japan since time immemorial.

The periodical partition of land, and the common cultivation of the royal domain seem to have been practised in the early days of Japanese history. The size of such allotted areas was just sufficient to yield enough rice to sustain the cultivator, each adult man and woman being entitled to half an acre of land, which averaged twenty bushels of rice per acre even during the primitive stages of agriculture. The rice of the domain was stored in the Government granaries, and made good use of during odd years. It was the established policy of the Government to provide reservoirs and canals for the irrigation of the paddy fields, and wherever water courses could be secured rice culture has found its way, the rural population accordingly increasing and prospering.

Rice was originally a tropical plant and gradually became acclimatised to the soil of Japan. Even now, the late varieties, though they are the largest producers, can not be safely depended upon in the northeastern sections of the country, while the early varieties are the only kinds that can be grown in the Island of Hokkaido. It was a slow process of evolution—the work of centuries, necessitated by the growth of population and by the frequent occurrences of famines—to acclimatise a tropical plant to even the extreme north of Japan. The extension of its culture is still going on, for to make the nation self-supplying and independent in this important national food, the paddy fields must be extended. The following statistical table shows the recent increase in area and yield of paddy fields:



SCENES DURING THE RICE HARVEST

| YEAR | AREA 1,000 Cho | PRODUCTION 1,000 Koku | AVERAGE PRODUCTION PER Tan |
|------|----------------|-----------------------|----------------------------|
| 1912 | 3,003 | 50,222 | 1.672 koku |
| 1913 | 3,029 | 50,255 | 1.659 koku |
| 1914 | 3,033 | 57,006 | 1.879 koku |
| 1915 | 3,056 | 55,914 | 1.830 koku |

ECONOMIC IMPORTANCE OF THE RICE INDUSTRY DURING FEUDAL TIMES

JAPAN began to coin money about 90 A. D., but for a long time all the taxes were

paid in kind. Not only were taxes paid in kind for the paddy fields and upland farms, but all the industries, such as mining and fishing, paid their share in goods. Exchange

was mostly by barter, though money came gradually to be used to some extent. Unhulled rice was kept in national granaries and often formed a medium for deferred payments. The paddy fields were granted to courtiers and men of rank according to the scale and importance of office. After feudalism became established in the eleventh century, the basis of grants was changed gradually from land to the product of the land. A *koku* of rice (5 bushels) was the unit of measure for the income of feudal lords and their vassals, though the *koban* of gold was minted and until the Restoration in 1868 maintained a ratio to subsidiary silver, at 1 to 5. The Tokugawa shogunate domain was estimated to be 8,000,000 *koku* of rice. The wealthiest feudal lord, represented at the present by the family of the Marquis Maeda, who stood at the head of all the other feudal lords, was estimated to possess a territory yielding 1,000,000 *koku*.

All the great feudal lords as well as their vassals were compelled to sell their rice in the markets in order to maintain their domestic finances, consequently rice was transported to the nearest markets to find a ready sale. Yedo (the present Tokyo) and Osaka were the two great rice markets. At Asakusa, in Tokyo, granaries may still be seen, remains of the feudal days, though they have since been rebuilt. The present Rice Exchanges in Tokyo and Osaka have thus a historical basis.

RICE IN THE MODERN MARKET AND IN THE NATIONAL ECONOMY

THE market for rice is chiefly domestic. Formerly it was transported by means of river and coastwise navigation, but with the construction of railroads for internal traffic the course of transportation has undergone many changes. Besides the two central markets, Tokyo and Osaka, there are many important provincial markets, such as Nagoya and Kuwana, where produce exchanges have been established. In recent years the quality of rice has been considerably improved, hence provinces which formerly had only local markets for their rice can now send it to Tokyo and sell it there. The earliest varieties, grown in Nigo-Han, near Tokyo, appear in the market even as early as August, but the latest varieties are of the best quality and command the highest prices. It is the aim of agriculturists throughout the country to improve the quality of rice, as well as the manner of packing in straw bags for transportation, considerable improvement having been achieved in that respect, especially in the provinces of Kumamoto, Oida, and Yamaguchi. The result is a saving in handling and transportation



TWO PROCESSES OF SEPARATING THE RICE GRAINS FROM THE HUSK

and a gain in commanding a good price in the markets.

Rice growers usually use barley or naked barley as a diet and sell their rice in the markets. This is similar to the case of silk raisers, who sell their silk and buy cotton for their own use.

The annual production of rice is over 250,000,000 bushels and if we estimate it as averaging three yen per bushel, the whole value would be Yen 750,000,000. No other industry can compare with this one in importance in the national economy. When such a vast quantity of rice begins to appear in the markets in the fall, throughout the country, it can be easily imagined that business is very brisk, in which bankers and merchants share. If, however, the crop is short, business becomes dull, and every one feels an agricultural depression. This single crop seems to be the mainspring of the national economic activity,—its importance to the welfare of the people of Japan can not be overestimated.

RICE CULTURE: ITS EXTENT AND VARIETIES

THE cultivation of rice is not poetical nor fancy work but a work of real drudgery. Japanese farmers are born to rice growing,—the paddy fields seem to them a paradise, their homes are surrounded by them. The farmer and his family look after the water, morning and evening, during the growing season, and do not mind the heat of the summer sun when weeding. They are, however, afraid of storms at the time of flowering, and of the 210th day of the lunar calendar. When crops are ripe and ready to harvest, men and women are kept busy with the sickles. The rice plants bend with the heavy grain and the paddy fields look as

if loaded with precious gold. The rural folk are then active in the fields, and as merry as at the time of transplanting. Drying, threshing, and hulling involve much hard work, while no labour is spared in securing a good yield. Vigilance is required in looking after enemies, especially insects and borers. Idlers can not succeed in the growing of rice, and it is inherited experience which enables Japanese farmers to become expert in its cultivation. They are more pleased when working in paddy fields than on the upland farms, which is one reason why the culture of rice has been gradually extended, even to the northern provinces. The Island of Hokkaido is rapidly becoming a rich rice-growing country, though but thirty years ago, rice was grown only in limited localities in the southern part, and not a bushel was produced in the vicinity of Sapporo at that time. Now about 4,000,000 bushels are grown annually in Hokkaido, which within thirty years may be increased fivefold—to 20,000,000 bushels—inasmuch as the paddy fields can be increased without much difficulty to about five times the present area. If the experiments in scientific rice-breeding succeed in producing earlier varieties, then the culture may still be extended to those provinces in Hokkaido where the climate has hitherto been considered too severe for its growth. The acclimatisation of rice, though a slow process, is a possibility; therefore, it will make possible the replacing of the present earliest varieties by still earlier and newer varieties. There are three kinds of rice; ordinary, glutinous, and upland. The most important of the three is the ordinary rice, which may be divided into three varieties, namely, early, medium, and late. Each of these varieties has about ten chief sub-varieties and are the most

commonly cultivated. One variety differs from another in the length of the straw, the number of shoots, the length of ears, the number of grains in the ear, the size and form of grains, the time of ripening, and other peculiarities. So long as rice forms the chief national food and plays an important part in the economy of the nation, it is very desirable to produce the best early varieties and to extend rice culture to all parts of Hokkaido and even to Saghalien.

PRODUCTION AND CONSUMPTION OF RICE IN JAPAN

RICE culture may be said to form the backbone of Japanese agriculture, the paddy fields constituting more than one-half of the arable land of the country. The mulberry and tea farms produce two important articles of export, but the value of tea and silk can not be compared with the importance of rice. If cotton merits the name of "King" in America, rice is certainly entitled to be called "Queen" in Japan. The following table shows the increase of area of the paddy fields during nearly forty years:

| PERIOD | AVERAGE AREA OF PADDY FIELDS |
|------------------------|------------------------------------|
| From 1878 to 1887..... | 2,579,060 cho |
| From 1888 to 1897..... | 2,754,289 cho |
| From 1898 to 1907..... | 2,861,158 cho |
| From 1908 to 1914..... | 2,978,576 cho |

These statistics show that the area increase of paddy fields from 1878 to 1914 was 399,516 cho (1 cho being equal to about 2½ acres); that is, the increase averaged 11,103 cho per year. From this fact we infer that Japan, being pressed by the growth of population, is

using the lands available for rice culture as paddy fields. This increase in area is not at the expense of the upland farms because the total area of the latter also shows some increase. Hence we conclude that arable lands are constantly being reclaimed from new lands and that the margin of cultivation is extended to inferior soil. The result is an increased production of rice, as may be seen from the following statistics:

| PERIOD | AVERAGE YIELD OF RICE |
|-----------------------------|-----------------------|
| From 1878 to 1887 | 31,809,467 koku |
| From 1888 to 1897 | 38,236,831 koku |
| From 1898 to 1907 | 44,382,972 koku |
| From 1908 to 1914 | 51,457,321 koku |

This shows that the increased production of rice amounted to 19,647,854 koku (1 *koku* equals 5 bushels) in thirty-six years. The average increase per year is 545,773 koku, which is about the amount needed for the increase of population. How long we can continue to increase the production of rice at such a ratio is a question of vital importance to the welfare of the nation.

The consumption of rice per capita is increasing constantly, as the following statistics show. The statistics are based on the assumption that the rice consumed is the amount of production of the previous year plus or minus the amount of rice imported or exported, as the case may be.

| PERIOD | AVERAGE CONSUMPTION PER CAPITA |
|-----------------------------|--------------------------------|
| From 1888 to 1897 | .946 koku |
| From 1898 to 1907 | .984 koku |
| From 1908 to 1912 | 1.042 koku |

Besides being consumed as food in the form of rice flour, rice is used for confectionery, for distilling saké, and for starch. The standard of living being constantly raised, the consumption of rice in the future will far exceed one koku per capita. It is, therefore, necessary to increase the yield of rice per tan by means of intensive culture. The following statistics show that the yield of rice per tan has been raised within the last twenty years.

| PERIOD | AVERAGE YIELD PER TAN |
|-----------------------------|-----------------------|
| From 1888 to 1897 | 1.401 koku |
| From 1898 to 1907 | 1.571 koku |
| From 1908 to 1912 | 1.734 koku |

If we take the three years 1912, 1913, and 1914, the average comes up to 1.771 koku per tan (1 *tan* equals $\frac{1}{4}$ acre), so that the yield per acre is over 35 bushels. It will not take many years to bring the average yield up to 40 bushels per acre. The four prefectures, Kyoto, Osaka, Nara, and Wakayama, returned, in the year 1914, 49 bushels as the average yield per acre.

RELATION OF THE PRICE OF RICE TO OTHER COMMODITIES AND TO WAGES

THE price of rice is, of course, regulated by the law of supply and demand, but it constantly fluctuates in the market, depending chiefly on the condition of the crops. The produce exchanges find it very difficult to fix the normal price during the ripening season when the facts of temperature and humidity are still uncertain. The fluctuation of the



WOODEN MORTAR AND POUNDER FOR POLISHING RICE—THE RICE MERCHANT



HARVESTING SCENE

price often causes anxiety to the people inasmuch as rice is their main food, and also because it also fixes the standard price of other necessities of life, as well as the wages of the working classes. The rice imported from British India, Siam, French Indo-China, and other countries in Asia tends to moderate prices as it is cheaper, being of an inferior quality. Within three years, from 1912 to 1914, the rice imported from these sources averaged 2,631,450 koku per annum and amounted to 34,996,573 yen. There is also a supply from Formosa and Korea which helps to steady the rice market. In Formosa there are two crops per year, but the quality is rather poor. In Korea they depend chiefly upon rainfall for irrigation, but the rice is of better quality and commands a higher price than that grown in Formosa. From 1912 to 1914, inclusive, the rice imported from Formosa averaged 820,018 koku per annum, valued at 10,953,215 yen, an average of 13.28 yen per koku. From Korea the Japanese imported rice during the same period which averaged 624,629 koku per year, valued at 9,582,674 yen, or 15.71 yen per koku. Thus it will be seen that within three years, from 1912 to 1914, inclusive, the rice imported from the Asiatic countries, Formosa, and Korea, averaged over 4,000,000 koku, with a value of more than Yen 55,530,000 per annum. This cheaper rice supplied food to the poorer classes and supplemented the deficiency in quantity of the native rice. Without this importation the prices of commodities other than rice would have become higher. These other commodities are barley, beans, and other necessities made out of such grains, as,

for instance, *miso* and *sauce*, and would much affect the domestic economy of the wage-earning classes. If this imported rice (4,076,097 koku) be added to the average quantity of rice produced, it would make a total of 56,570,758 koku. This amount would represent the average quantity of rice consumed during the period under consideration, provided none is exported. Though the native rice commands a higher price, some of it is exported to other countries, chiefly for the consumption of Japanese living there.

During the period under consideration the rice exported averaged 272,121 koku per year at a value of 5,627,997 yen, showing that the quantity of the export was about 7 per cent, while the value of the import was about 10 per cent. When the price rises it can be steadied by the importation of foreign rice, but when it gets so low as to cause loss to the producers it is very difficult to bring the price up again to a normal standard, because there is not sufficient market abroad for Japanese rice. Elasticity and adjustment of the price seem to be one-sided. Hence, at the last meeting of the Agricultural Committee for the Adjustment of the Price of Rice in Tokyo, the establishment of rice granaries in different prefectures was recommended as the only effective method of keeping up the price to a normal standard. But the most natural and the most economical way of adjusting the price, whether high or low, must be to open world markets to Japanese rice. The following table shows the price per koku per decade since the Restoration:

| PERIOD | YEN |
|-------------------|-------|
| 1868 to 1877..... | 6.36 |
| 1878 to 1887..... | 7.40 |
| 1888 to 1897..... | 8.09 |
| 1898 to 1907..... | 13.33 |
| 1908 to 1912..... | 16.72 |

During these forty-five years the minimum price was 3.88 yen per koku, in 1872, and the maximum price was 20.72 yen per koku, in 1912.



CHANGING THE ROOF, AN OPERATION NECESSARY BUT ONCE IN A GENERATION

HOW RICE IS GROWN IN JAPAN

I HAVE hitherto treated some of the economic features of the Rice Industry in Japan, but its agronomical features may also interest some readers. The rice grower has pursued most unique methods of culture from ancient times. The modern science of agriculture has introduced some new innovations, but on the whole the culture remains the same, and the farmers attend to the various phases of the work in the paddy fields, deep in mud, as in days of yore. A certain reverence is accorded to rice culture because, as a time-honoured industry, it has produced for the people of Japan the necessities of life. We, too, have our Thanksgiving Day, the 17th of November, which is a national holiday, when the ceremony of first-offerings of rice to the Ancestors is observed by the Imperial Household.

With regard to the technical points of rice agronomy, the following may be noted:

(1) The selection of the best rice for seed is very essential in order to secure good crops. The selection may be made by means of salt water, as good seed always sinks to the bottom. The seed beds are first thoroughly prepared, from which the plants are transplanted into the paddy fields. If the seeds are immersed in cold water about a week, germination in the seed beds is hastened. In the northern provinces, especially in Hokkaido seeds are dribbled directly into the paddy fields, thus dispensing with the practice of transplanting.

(2) The preparation of paddy fields must be thoroughly done before transplanting. This involves the work of plowing or spading, pulverising, manuring, and irrigating. In southern Japan the paddy fields are cropped twice a year, that is, one crop of rice is followed by barley or rape. Much work and care is involved in preparing the soil for two such different kinds of crops. Transplanting is the most lively field work performed by the country people, both men and women, old and young. After transplanting, care must be taken to have sufficient water in the paddy fields, otherwise the plants will not grow well. The manures used are of various kinds, such as night soil, barnyard manures, fish guano, bean cake, wood ashes, bone meal, artificial fertilizers, and green manures. The time of application depends upon the kinds used, as well as the soil and climate, but it must be remembered that the plant needs food mostly during the growing season, especially just before flowering. Weeding is done two or three times during the plants' growing period. This is a most tedious kind of work, as it must be done by hand in the muddy rice fields, since no adequate implements can be used. After the weeding is attended to farmers can rest and await the ripening of the grain.



A COUNTRY GIRL IN THE CHERRY SEASON

(3) A good crop of rice depends much upon favourable weather, storms being the deadly enemies of the plants, especially at the flowering season. Not only the farmers, but also all classes of people, who know that the prosperity of the year depends much upon climatic conditions, anxiously watch the weather signals and reports during the summer months. The most favorable weather for the growth of the plants is—(a) high temperature, (b) rainfall, not too frequent, (c) no storms during the flowering season. Extremes of weather are, however, very frequent during the growing period. At such times not only no good grain, but even no good straw may be expected. There is no other crop on the face of the earth which climatic influences affect so much as rice grown in Japan.

(4) Harvesting, threshing, and hulling are all done by means of crude implements and tools. As the paddy fields are dry at the time of harvesting some harvesting machines can be used, but the fields are so small that the farmers still use the simple sickle. After being dried in the fields the harvested crop is subjected to hand threshing, and the grains are hulled in a hand mill. Then the rice is packed in straw bags and sent to the market,

where the polishing is usually attended to by the rice dealers.

CONCLUSION

CAN the cultivation of paddy fields be organised as a business? They are now simply employment fields, that is, farmers employ their time and get a wage-income but nothing more. Can not culture on a large scale be introduced? The extreme small-scale culture, or spade farming, is still the chief method of rice culture. How can improvement be introduced into this national industry so as to elevate it as a business? Prosperous rural economy depends much upon the solution of such a vital problem. According to recent statistics the total number of farming families was 5,453,969 in the year 1915, while the total area of paddy fields was given as 2,965,566 cho. The average area per family is a little over 0.5 cho. The total area of upland farms is given as 2,893,760 cho, so that the average area per family is also a little over 0.5 cho. Both being added together it will make a little over one cho per family. One cho of arable land, which is equivalent to about two acres and a half, is not sufficient to make farming a prosperous business. Consequently the farmers are farm labourers who employ their time on their own or tenanted land in order to earn wages, but they obtain no profits on other business undertakings. This wage-income is not enough to support farmers' families, therefore subsidiary occupations are necessary in order to eke out an existence. However, as in France, there being not many profitable industries in rural districts where they can employ their surplus time, the farmers migrate from the rural communities to the cities and industrial centres.

This is a vital national problem, which must not be overlooked. This rural exodus is, however, not a thing entirely to be regretted in Japan. It may give a much needed stimulus to the reorganisation of the rural communities and the improvement of agriculture. It is hardly possible that this rural exodus will be carried to such an extent as to leave arable lands uncultivated or villages deserted. On the contrary, we can maintain the productivity of the soil, or even make it more productive, by reorganising agriculture, even though there may be some exodus of the rural population to the urban districts. How we shall accomplish this reorganisation is a grave question which the people must seriously consider.

I have shown above that the average area cultivated by one farmer family is a little over one cho, but a great majority of farmers cultivate considerably less than one cho. In the year 1915 the following sta-

tistics were given by the Government authorities:

| AREA CULTIVATED PER FARMER FAMILY | FAMILIES | PER CENT |
|---|-----------|-------------|
| Under 0.5 cho..... | 1,990,275 | 36.64 |
| Over 0.5 cho..... | 1,823,895 | 33.35 |
| Over 1.0 cho..... | 1,092,157 | 19.95 |
| Over 2.0 cho..... | 330,121 | 6.10 |
| Over 3.0 cho..... | 149,367 | 2.74 |
| Over 5.0 cho..... | 68,154 | 1.22 |
| <i>Total</i> | 5,453,969 | 100.00 |

Thus 70 per cent of the farmers cultivate an area less than one cho. No rice industry,

however intensively it may be carried on, can flourish on such a small patch of ground. Hence, the reorganisation of agriculture in Japan so as to increase the area of arable lands is most urgent. This can be done by turning some portions of the forest lands into arable lands, the extent of the former being three times as great as of the latter. In 1915 the total area of all kinds of forests, namely, Crown, State, Communal, Temple, and private forests, was given as 18,640,873 cho. Perhaps on account of the difficulty of irrigation the newly reclaimed lands can not be turned into paddy fields. If so, we could here grow upland rice, or more profitably still, raise stock, whether horned cattle, sheep, or pigs. The income from these sources would greatly supplement that from

the original paddy fields or upland farms. Moreover, manures are a great asset to the farmers as they enable them to keep up the fertility of the soil. The introduction of stock will naturally lead to the cultivation of grasses and root crops, and hence more work-horses, with plows, harrows, cultivators and other tools will come into use. The rice industry, accompanied by the raising of a small amount of stock, will greatly ameliorate the condition of the farmers. Sericulture, hitherto known as the great subsidiary occupation, and stock-raising, the new subsidiary occupation, both being united in an organisation, will make the rice industry a profitable business, and the farmer's life endurable and even happy.



PROMINENT IN THE FERTILIZER AND CHEMICAL INDUSTRY

(Upper Row) Mr. B. OI, Chairman of Directors, Tokyo Sulphuric Acid Co., Ltd.—The late Mr. M. YAMADA, founder of the Japan Sulphur Co., Ltd.—Mr. A. YAMADA, Managing Director, Japan Sulphur Co., Ltd.—Mr. S. KATOW, Managing Director, Japan Acetic Acid Mfg. Co., Ltd.
(Middle Row) Mr. J. KAMIKYO, Managing Director, Osaka Alkali Co., Ltd.—Mr. K. ANRAKU, President of Great Japan Artificial Fertilizer Co., Ltd.—Mr. TOKUGORO NAKAHASHI, President, Nippon Chisso Hiryo Kabushiki Kaisha—Dr. N. TSUNETO, President, Rasa Island Phosphate Co., Ltd.—Mr. U. ISHIKAWA, Managing Director, Kanto Sanso Kabushiki Kaisha.
(Lower Row) Mr. HIDEKICHI KOJIMA, Managing Director, Japan Artificial Fertilizer Co., Ltd.—Mr. H. HIRATA, of Great Japan Artificial Fertilizer Co., Ltd.—Mr. S. FUJIMOTO, Chairman of Directors, Osaka Alkali Co., Ltd.—Mr. NOGUCHI, Managing Director, Nippon Chisso Hiryo Kabushiki Kaisha—Mr. Y. TANAKA, President, Kanto Sanso Kabushiki Kaisha—Mr. TETSUTARO HASEGAWA, Standing Director, Japan Artificial Fertilizer Co., Ltd.

THE CHEMICAL INDUSTRIES

JAPAN'S chemical industries received a tremendous impetus during the war, especially in coal-tar, alkaline, and electro-chemical enterprises, as well as to some extent in metal refining, particularly zinc. The Japanese have taken up the industry of manufacturing saltpetre with nitrogen from the air by electrical process. Red phosphorus is also being produced in large quantities for matches. If all the companies engaged in the production of chlorate of potash go on at the present rate, the output will greatly exceed the demand. The Japanese are using a great deal of glycerine now, which is being made from fish oil, but the production is yet far below the demand. Commercial oxygen, sulphate of ammonia, and carbide works are doing their best to meet domestic requirements. Japan usually uses about 140,000 tons of sulphate of ammonia annually, of which the local output supplies some 100,000 tons. The Government is creating free laboratories for the promotion of technical education in chemistry and research, and wealthy public-spirited citizens are doing likewise.

THE JAPAN ARTIFICIAL FERTILIZER CO., LIMITED

ONE of the most flourishing industries in Japan is that involving the production of artificial manures, and chemicals for general commercial use. Apart from the commercial side of the industry, it may be said that it has been found absolutely essential for Japan to produce her own artificial fertilizers, in order to obtain the greatest possible yield from the rice and other arable lands in the country. These are limited in extent, and the harvests fall far below the requirements of the rapidly growing population. Without the use of fertilizers, the disparity between the supply and the demand for the staples of life, such as rice, vegetables, etc., would be a very serious one. Up to quite recent times Japan's requirements in fertilizers were largely met by import from foreign countries, but once the problem of making the country largely independent of foreign supply was faced by the Japanese engineers and chemists, the situation has been completely changed. Not only does the chemical fertilizer industry provide for all domestic requirements in many leading lines, but a large export trade has been developed.

In the forefront of the artificial fertilizer industry is the Japan Artificial Fertilizer Co., Ltd., a strong organisation which has the backing of the Furukawa interests, Baron Toranosuke Furukawa being one of the largest shareholders. The company was

originally established in 1899, a factory being erected at Kinegawa, Tokyo Prefecture. Several changes took place in the organisation during the first years of the existence of the enterprise, but steady progress was always maintained, the company increasing its output year by year, developing new lines of manufacture, and generally prospering with the improvement in conditions throughout Japan. In 1907 the Kyoyeki Artificial Fertilizer Co., Ltd., at Ōgu, Kitatoshima County, Tokyo Prefecture, was purchased, and its plant was made the Japan Artificial Fertilizer Co.'s Ōgu branch factory. In 1915 Baron Furukawa, realising the great future before the company, and the bright prospects for the industry generally, purchased a large interest in the concern. At



TEA PICKERS

this time the market for fertilizers was extraordinarily active, and a broad expansion policy for the Japan Artificial Fertilizer Co. was entered upon. Up to this time the capital had been Yen 500,000, but now the sum was raised to Yen 2,000,000. A despatch office was opened at No. 7 Komatsucho, Fukagawa-ku, which is the centre of the fertilizer market in Japan, and a chemical factory was established at Nagoya, for the production of sulphuric acid and superphosphates of lime. A technical staff of 50, and 500 workmen, were engaged, and when in full operation this factory began to turn out 80,000 tons of chemical products per annum.

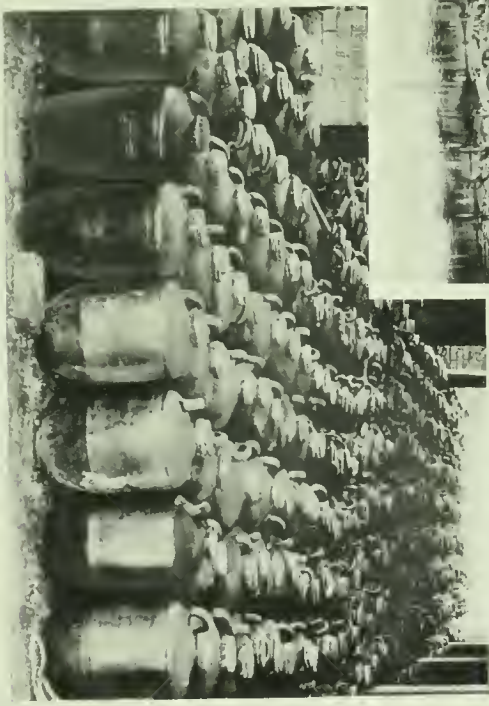
Up to this time the company was principally engaged in the manufacture of superphosphate, but with the development of the business, attention was given to the production of all classes of artificial manures for different purposes. Over a hundred

different fertilizers were invented in the company's laboratories, and their values for various branches of agriculture were demonstrated by practical tests. These fertilizers are now all on the local and foreign markets, and their excellence is generally recognised to be surpassed by no other products. Among these special products may be mentioned an ideal fertilizer for young rice plants, for rice production generally, for wheat, for tobacco plants, for sweet potatoes, for ordinary potatoes, for mulberry trees (the food of silkworms), and for fruit trees. The company's superphosphates are sold in various degrees from 15 to 21 per cent of water soluble phosphoric acid. The different products have been exhibited in competition at many trade exhibitions, and have been awarded medals and the highest honours. Besides the lines mentioned, the Japan Artificial Fertilizer Co., Ltd., manufactures strong sulphuric acid, muriatic acid, and muriates. The company also engages in the sale and purchase of organic and inorganic manures such as sulphate of ammonia, Chilean saltpetre, bean cake, rape-seed cake, etc. The name of "Japan Fertilizer" and the company's brand in a diamond, are well known throughout Japan and abroad, a large export trade being done with India, Java, Australia, the Philippines and elsewhere.

The principal officials of the Japan Artificial Fertilizer Co., Ltd., are: Mr. K. Yokogawa, President and Director; Mr. H. Kojima, Managing Director; Mr. T. Hasegawa, Standing Director; Messrs. N. Hasegawa and R. Suga, Directors, and Messrs. K. Kita and M. Ishii, Auditors. At the close of the half-year, June 30, 1917, the company's balance sheet showed assets of Yen 2,686,007.34. The profit for the period was Yen 116,322.45, which with Yen 20,805.35, brought forward, was distributed as follows: Repayment of fixed capital, Yen 20,000; bonus, Yen 7,500; to legal reserve, Yen 5,500; to special reserve, Yen 25,000; dividend at 12 per cent, Yen 57,000; leaving a balance to carry forward of Yen 22,127.80.

THE RASA ISLAND PHOSPHATE CO., LIMITED

AN enterprise of considerable importance to Japan is that which is being carried on by the Rasa Island Phosphate Company, Limited, a company engaged in developing the immense phosphatic rock fields on Rasa Island, a hitherto deserted and neglected outpost of the Japanese Empire. This island was not discovered till late in the last century, and for some years it appeared on the British Admiralty charts as Rasa, or Kendrick Island. In August, 1892, a Japanese warship



JAPAN ARTIFICIAL FERTILIZER CO., LTD.: TRUCKING MATERIAL OVER THE COMPANY'S TRAMWAYS—GENERAL VIEW OF THE FACTORY AT KINOGAWA
—(CENTRE) VIEW OF THE WORKS AT TOKYO—BAGGING SUPERPHOSPHATES—A LARGE STOCK OF SULPHURIC ACID



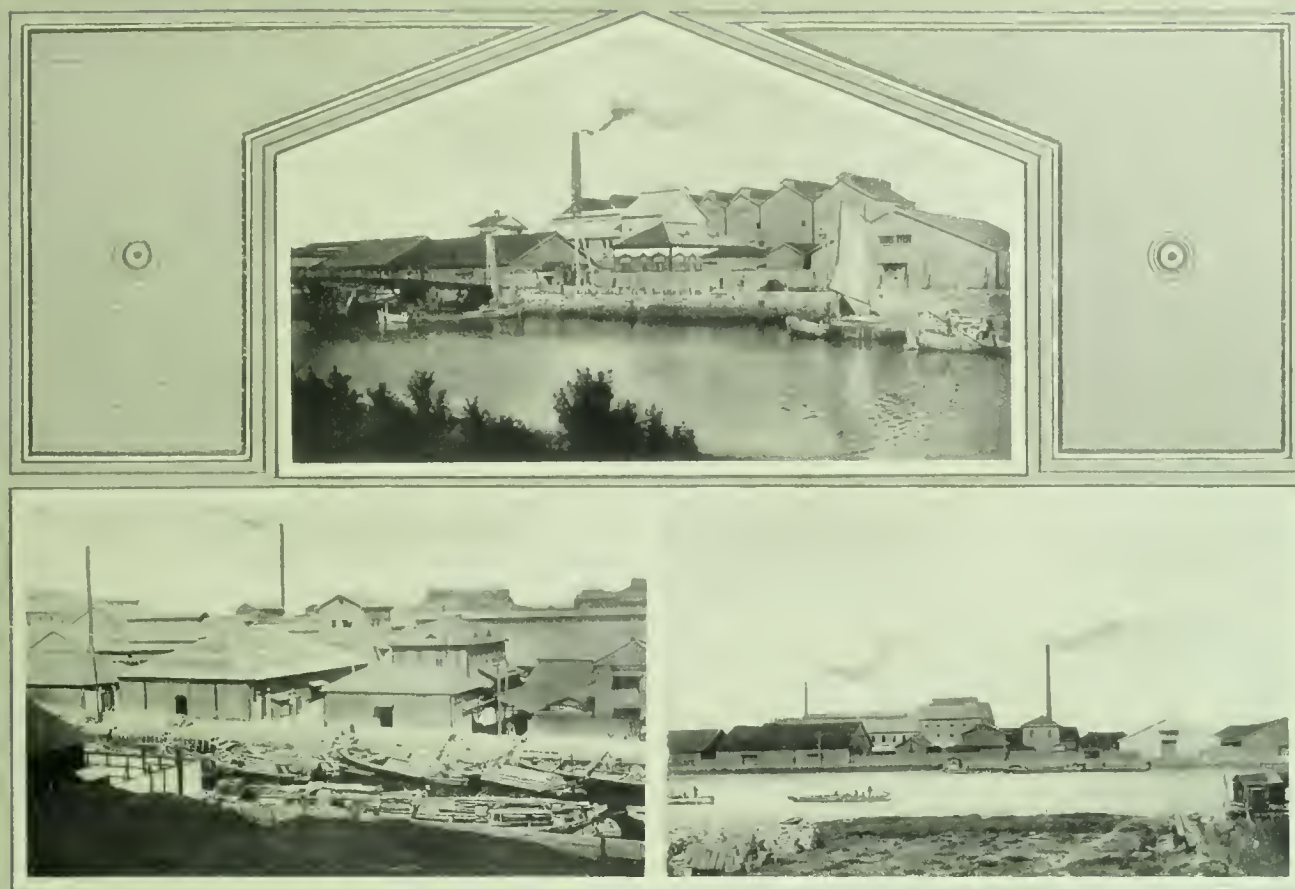
RASA ISLAND PHOSPHATE CO., LTD.: TRUCKING THE ROCK AWAY—TRENCHING FOR PHOSPHATIC ROCK—THE STORING AND DESPATCHING SHEDS—THE BIG QUARRY NEAR THE WATERFRONT

was despatched to survey the island which lies in latitude $24^{\circ} 32'$ north, and longitude $131^{\circ} 19'$ east, about 850 miles south-south-west of Yokohama. Rasa Island was entirely uninhabited, and apparently had no commercial value, but in September, 1900, it was formally declared by the Japanese Government to be a Japanese possession under the name of Okidaitojima, and annexed to Daitojima, Okinawa Prefecture, in the Luchus. Later on the existence of phosphatic rock was discovered on the island, and Dr. N. Tsuneto visited the place, and the result of a most thorough investigation by this eminent scientist disclosed the existence of extensive deposits. The field offered every facility for easy working, and the prospects of establishing a successful industry seemed excellent to Dr. Tsuneto, since Rasa Island is free of noxious insects, malaria, or other conditions militating against the importation of workmen. On Dr. Tsuneto's recommendation it was decided to establish a company to exploit the phosphate deposits, and the Rasa Island Phosphate Goshi Kaisha was formed in 1911 with Dr. Tsuneto as its President. Excava-

tion work was soon commenced, and a preliminary survey of the fields showed a most encouraging state of affairs. Phosphatic rock deposits were exposed over a surface of 35,612 *tsubo*, but excavation showed that the area available for working was some 280,000 *tsubo*, or roughly 2,450 acres, the strata being from 9 to 30 feet deep. A careful survey and calculation resulted in an estimate being framed of 10,071,720 tons of available rock. This estimate could hardly be credited by those who had not visited the island, but it was more than confirmed by a body of experts who examined the field in 1912. Moreover, independent analyses demonstrated the rock to be exceedingly rich in phosphoric acid, three different laboratories giving the percentage as 36.90, 36.52, and 35.99 respectively. This percentage is greater than that of either the Algerian or Florida phosphates, and the Rasa Island rock is superior to the other two in that there is an absence of obnoxious fluorine matter, as well as a lesser admixture of iron and alumina. Rasa Island rock is also superior to the others because the phosphoric acid yielded, taking 20 per cent as a basis, is

soluble to the extent of 18 per cent in water, and 0.5 per cent in ammonium citrate. As rock suitable for the fabrication of superphosphates, the Rasa Island material at once attracted keen interest in Japan, when these facts were made known. The demand for superphosphates in Japan is calculated at 300,000 tons per annum, and naturally the discovery of such a rich new field offered a most attractive proposition for commercial exploitation.

After some thousands of tons of rock had been excavated, and trial shipments made, it was seen that the Rasa Island Company was not large enough to handle the enterprise, and get out the rock fast enough to meet the demand. Some 150 workmen had up to this time been engaged in excavating by hand, but the need for a more numerous force and an up-to-date excavating plant was realised. Accordingly, in 1913, a limited liability company was formed with a capital of Yen 3,000,000, and the thorough development of the field was taken in hand. Since then, the history of the Rasa Island Phosphate Company, Limited, has been one of rapid progress.



THE GREAT JAPAN ARTIFICIAL FERTILIZER CO., LTD.: THE YOKOHAMA, KAMAYABORI, AND KOMATSUGAWA FACTORIES

The number of workmen on the island at present has been increased to more than 2,000, excavating machines have been installed, railway lines laid, piers constructed, and four steamers of 2,500 to 3,000 tons, besides a number of sailing ships, have been purchased or chartered for the transportation of the rock to Japan for treatment in the fertilizer factories. The operations of the company have demonstrated beyond doubt that the field is an exceedingly valuable one, the rock having been found to extend in places over seventy feet below the surface. It is easily worked by open quarrying, and the shipping facilities are excellent, there being good anchorages and plenty of water close in to the shore. The output of rock has rapidly increased under the improved system of working the field, and everything points to the company realising good profits from its enterprise. Dr. Tsumeto is the President of the Rasa Island Phosphate Company, Limited, the head office of which is at No. 1, Yuraku-cho, Kojimachi-ku, Tokyo.

GREAT JAPAN ARTIFICIAL FERTILIZER CO., LIMITED

PERHAPS the first steps taken in the direction of establishing the artificial fertilizer business of Japan were those which led to the formation of the business at present conducted by the Dai-Nippon Jinzo Hiryo Kabushiki Kaisha, known by its English title of the Great Japan Artificial Fertilizer Co., Ltd. The genesis of the industry is undoubtedly to be found in the enthusiastic work of Dr. Jokichi Takamine, one of the best known men of science in Japan, and a chemist of world-wide reputation. Dr. Takamine was at one time, as Professor of Technology and Professor of Pharmacy, in the service of the Department of Agriculture and Commerce, and in the years 1885-6 was despatched to Europe on official business for the Imperial Japanese Government. He was deeply impressed with the extent to which foreign agriculturists made use of artificial fertilizers, and the importance of the manufacture of these aids to crop production. Upon his return to Japan Dr. Takamine strongly urged upon a number of influential

men in commerce and industry, the imperative need for the establishment of fertilizer manufacture in Japan, and the greater use of artificial manures in all departments of agriculture. Under his direction a company was decided upon, the promoters including the following influential Japanese men of affairs: Baron Shibasawa, Baron Okura, Messrs. Takenosuke Mitsui, Kisaku Shibasawa, Zenjiro Yasuda, Takashi Masuda, Soichiro Asano, and Kyohei Mikoshi. It would be difficult even now to find a more influential body of men in Japan to act as the fathers of a new industry, for these gentlemen are to-day the foremost leaders in finance and commerce in the country, their names being associated with the greatest and most successful enterprises in Japan. The company was formed in 1887 with a capital of Yen 250,000, and the erection of a factory at Kamayabori, Fukagawa, Tokyo, was started, though it was not till 1888 that the plant was actually in operation.

As a pioneer in a new industry the way of the Great Japan Artificial Fertilizer Co., Ltd., was at first beset with difficulties, and,

in fact, its progress may be said to date only from after the Russo-Japanese War. The first years were occupied in developing some degree of productive capacity, establishing factories, and learning the business, while at the same time financial arrangements had to be continually altered to meet increasing demands and changing conditions. The first increase in capital did not take place till 1896 when the sum was raised to Yen 500,000. Thereafter increases in capital followed very regularly, as new factories were called for, and the company's interests widened by the amalgamation of or purchase of other proprietary concerns. The last increase of capital took place in January, 1913, when the amount was raised to Yen 12,500,000, thus making the concern the largest of its kind in Japan. In August, 1908, the company purchased the Hokkaido Artificial Fertilizer Co., Ltd., and the Imperial Fertilizer Co., Ltd. The following year the fertilizer department of the Settsu Oil Manufacturing Co., Ltd., was purchased, a special loan of Yen 1,000,000 being floated for this purpose. In July, 1910, the Osaka Sulphide Soda Co., Ltd., was bought out, this step necessitating the raising of the capital to Yen 6,250,000. The same year the present title of the Great Japan Artificial Fertilizer Co., Ltd., was adopted. It may be said that up to 1910, despite the fact that the business had then been in existence over twenty years, the company's energies had been devoted to building up the industry, increasing the capital, amalgamating various competing interests, and generally establishing a powerful organisation to deal with a most important and rapidly expanding industry. When this work was complete

the company despatched its distinguished specialist, Dr. Toranosuke Nishikawa, to Europe and America to make a close examination of the conditions of, and methods obtaining in, the industry in foreign countries. Upon Dr. Nishikawa's report, many improvements in the factories and in the methods of production and general business conduct were effected by the Directorate.

If a bird's-eye view of the expansion of the business be taken it will be seen what great strides have been made in the thirty years during which the business has been operated. The production of all classes of fertilizers was only 50,000 *kwan* the first year. At the end of the first twenty years the output reached 23,400,000 *kwan*, and to-day the yearly production is approximately 100,000,000 *kwan* (1 *kwan* equals 8½ pounds). One of the specialties of the Great Japan Artificial Fertilizer Co., Ltd., is the manufacture of sulphuric acid, about 187,000 tons being produced annually, which is equivalent to about one-third of the total production from all factories in Japan. The company is also producing nitric acid, muriatic acid, precipitates of copper, iron precipitates, sugar purifying compounds, sulphur liquid, superphosphate of lime, bisuperphosphate of lime, and complete manures. Besides these manufactures, the company imports and sells Ocean Island, Christmas Island, Angaul, Macatea, Naul, Florida, Gaftha, and Llasa phosphates, as well as those from Noto, a province of Japan. These phosphates are used as raw materials for the production of superphosphates of lime. There are eight factories, located as follows: Kamayabori, Tokyo; Komatsugawa, Tokyo; Yokohama; West Osaka; North Osaka; Owada; Shimo-

noseki, and Hakodaté. The headquarters of the Great Japan Artificial Fertilizer Co., Ltd., are at No. 17, Kitashimburi-cho, Nihonbashi-ku, Tokyo, and there is a branch at Nishino, Osaka.

Mr. Kanemichi Anraku is the President of the company. The Managing Director is Mr. Hatsukuma Hirata, and other Directors are Messrs. Meizaburo Horinchi, Ichisaburo Abe, Taro Masuda, Motosaburo Tanaka, Teinosuke Murai, Toranosuke Nishikawa (Professor of Technology and Chief of the Technical Department), and Yoshibumi Murota. The Auditors are Messrs. Shuzo Matsuoka, Jinzaburo Yeto, and Chozaburo Uyemura.

THE OSAKA CHEMICAL FERTILIZER CO., LIMITED

To realise a profit of 85 per cent on capital in the first year of operations speaks well for the soundness of management of the Osaka Chemical Fertilizer Co., Ltd. This concern came into existence in December, 1916, as a joint-stock company with a capital of Yen 2,000,000, the President being Mr. Konosuke Abe. The Abe Kobe Fertilizer Company's interests were purchased by the new organisation, and the methods of manufacture and handling of products were at once revolutionised, to bring about economy of production, the highest quality, and a large output at the lowest prices. The Osaka Chemical Fertilizer Co., Ltd., imports its raw materials direct from abroad and ships directly, its factories and plants being so arranged as to permit of the cheapest handling. There are three factories, namely, at Osaka, Yokohama, and Kawanoishi in Iyo Province. Crude phosphates are imported



PREPARING THE DRIED INDIGO LEAVES FOR SHIPMENT—INDIGO LEAVES—SIFTING THE DRIED LEAVES



GENERAL VIEW OF THE MODEL FACTORY OF THE OSAKA CHEMICAL FERTILIZER CO., LTD., AT SHINKOYASU-MACHI, YOKOHAMA

and transformed into superphosphates, and other lines dealt in are sulphate of ammonia, sulphate of potash, Chilean nitrates, fish guano, seed cake (cotton and hemp), bone meal, hoof meal, horn meal, bean cake, and other fertilizers. By a most economical process the company also produces large quantities of sulphuric acid from the by-products of zinc refining. As an indication of the company's well designed plants, it may be mentioned that steamers of 2,000 tons can be moored at the Kawanoishi factory. In no other fertilizer business is this the case, and it may be readily realised what this advantage means in economy of handling of imported raw materials and the export of the manufactured products. The Yokohama factory is entirely modern, and also most advantageously placed. It faces the sea, and is equipped with the most effective labour-saving devices. Branch railway lines are laid directly into the factory, connecting with the entire Government system, and the facility with which material and products is handled is not excelled anywhere else. Apart from the local trade a large export business, mainly with South Africa and Russia, is being done by the Osaka Chemical Fertilizer Co., Ltd. The managerial policy, based on the exceptional advantages the company enjoys through the

convenient location of its factories and the modern plants employed, is to turn out a maximum of high-grade products at the least margin of profit. Nevertheless, as stated before, the result of the first year's operations has been a profit of 85 per cent on capital. The head office is established at Nichome, Bingomachi, Higashiku, Osaka. The factories are located at Otakami, Hiyijima Village; Nishinari, Osaka; Koyasumachi, Yokohama; and Kawanoishi, Nishi-uwa, Iyo.

The principal officers of the Osaka Chemical Fertilizer Co., Ltd., are: Mr. Abe, President; Mr. Nobuhara Abe, Managing Director; Mr. Toshiro Saito, Co-Managing Director, and Mr. Juntaro Yamaoka, Adviser.

THE OSAKA ALKALI CO., LIMITED

AN industry that has made remarkable strides in Japan of late years is that involving the manufacture of drugs and chemicals, and artificial fertilizers. The shutting out of all European products because of the war has naturally compelled the Japanese to provide their own requirements, and it may be said at once that not only have they done this, but they are now in a position to export freely in almost unlimited quantities. There are three or four large companies, which were in existence before the war, and a number

have sprung up since. It is claimed for the Osaka Alkali Company, Ltd., that it is the real pioneer of the industry, and the fact that this powerful concern came into existence in 1880, when manufacturing of any kind was in its infancy in Japan, supports the claim. The Osaka Alkali Co., Ltd., is certainly one of the most important and enterprising chemical manufacturers in the Far East, and it is entitled to all credit for the work done in the early days in developing an industry that means so much to the Empire.

This company owns several factories, which are continuously engaged on the production of the highest grade of chemicals, fertilizers, and commercial drugs. The Azikawa Factory, at Minatoya-cho, Nishi-ku, Osaka, turns out such items as double superphosphate, calcium superphosphate, garden tablet fertilizer, mixed fertilizer, ammonium sulphate, potassium sulphate, bean cakes, oil cakes, sulphuric acid, hydrochloric acid, nitric acid, sodium sulphate, sodium hyposulphate, iron vitriol, ehrumanite (clarifying agent for low grade sugar syrup), and carbonizers which are used in place of ammonium sulphate for double safety machines. The Ono Factory at Chifune-mura, Nishinari-gun, Osaka-fu, has a similar range of production to that of the Azikawa Factory.



GENERAL VIEW OF FACTORY OF THE OSAKA ALKALI CO., LTD.



BAMBOO SHOOTS, WHICH GROW ABOUT EIGHT INCHES IN A DAY

The Matsumoto Factory at Shiriata, Matsumoto-shi, Nagano-ken, turns out caustic soda, gelatine and glue, bone ash, bromine, bleaching powder, hydrogenated oil, chrysalis oil, degreas, fatty acids, glycerine, bean oil and other oils. At the Sakaide Factory, which is situated at Hayashida-mura, Ayauta-gun, Kagawaken, the main lines of production are magnesium carbonate (precipitated), magnesium sulphate, potassium chloride, potassium permanganate, sodium sulphate, sodium silicofluoride, potassium bromide, and sodium bromide.

In all these products the Osaka Alkali Co., Ltd., has a large output, and so far as the quality is concerned, comparison with the world is invited. The company has had

nearly forty years' experience, and its direction is in the hands of such capable and well qualified business men as Mr. S. Fujimoto, the Principal Director, and Mr. J. Kamiryo, the Managing Director, who has the reputation of being one of the most experienced manufacturers in Japan, as well as a sound, progressive, and energetic business director. The capital of the company is approximately £455,000, but so great has been the demand for the company's products, owing to the high quality, and the reputation which they have won abroad, that it is now proposed to increase this capital largely, to permit of a wide extension of business, following substantial additions to the factories and plant. The Directors have already de-

cided on a new factory, designed by the experts of the Osaka Alkali Co., Ltd., and when this is completed it will, it is claimed, be without a rival, in point of size and complete equipment, in Japan. The head office of this rapidly growing and old-established company is at No. 127, Minatoya-Machi, Nishi-ku, Osaka, Japan. Correspondence from abroad is freely invited.

JAPAN SULPHUR CO., LIMITED

To this enterprising corporation must be given the credit for having placed the sulphur-producing industry of Japan on a sound business basis, applying proper mining methods to the operation of getting out the crude ore, and utilising the best machinery and appliances for the transport of the product from the mines to the refineries. To bring about such results has not been an easy task, but the Japan Sulphur Co., Ltd., has persevered in the face of many difficulties, and its policy has proved highly successful. It is the largest concern of its kind in Japan, and is engaged in very extensive operations, not alone dealing with the production of sulphur, but embracing the manufacture of various commercial products, and also in transportation within the sphere of its influence over a large area of country. In brief, the history of the Japan Sulphur Co., Ltd., follows.

In 1904 Mr. Makoto Yamada, of Fukui Prefecture, bought the sulphur-mining rights of Messrs. Kisaku Shibusawa and Jiro Hosono, which consisted of mines and other property at Mount Numajiri, in Yama County, Fukushima Prefecture. The property was not developed to any great extent, and furthermore, the entire sulphur industry was in a backward state. Mr. Yamada sought the financial assistance of Mr. Cho Okabe, and the latter gentleman financed the preliminary operations, and also the purchase of the neighbouring district. It was realised that further capital would be required, and to establish a joint-stock company Baron Matsudaira of Fukui was invited to become Chairman of the Committee of Organisation. Baron Matsudaira secured the coöperation of several influential friends, including some peers, and a company was formed with a capital of Yen 1,000,000. Even so, the extent of the work to be done and the difficulties of the economic situation at that time, made the financial problem a serious one, and the assistance of the Yokohama Specie Bank had to be obtained, Mr. Suteroku Takahashi, Vice-President of the bank, doing his utmost to help the company. Meanwhile the directors had proceeded with the preparation of plans for sulphur mining on a big scale.



JAPAN SULPHUR CO., LTD.: THE COMPANY'S NO. 1 FACTORY—AERIAL TRAMWAY AT THE NUMAJIRI MINE—SULPHUR REFINERY AT THE NUMAJIRI MINE—GALLERY ENTRANCE TO THE TUNNEL AT ONE OF THE COMPANY'S SULPHUR MINES—MANUFACTURING STICK SULPHUR AT THE KAWAGETA WORKS

Mr. Akira Yamada, son of the founder of the company, was appointed specialist to supervise the entire arrangements for refining. Mr. Yamada is a Master of Technology, and made a special study of sulphur while in the Technological Department of the Imperial University. Mr. Makoto Yamada's interests were formally merged in the Japan Sulphur Co., Ltd., in April, 1907, and the company actually started operations in the following year. Since then the company has pursued a steady policy of development of its properties and improvement of different processes. In July, 1913, Mr. Akira Yamada was made Managing Director in lieu of Mr. Kyutaro Nagai, and Mr. Rikisaburo Ikeda was appointed Chief of Mining Operations. The outbreak of the European war adversely affected economic circles in Japan and the sulphur industry suffered to some extent, but as the war developed conditions improved and by March, 1916, the market for sulphur was extremely brisk, the company's output rising from about 35 tons of sulphur to 60 tons a day.

The Japan Sulphur Co., Ltd., operates two sulphur fields, Numajiri and Numanotaira, both of them in Azuma Village, Fukushima. The two fields have a combined area of over 390,000 *tsubo*. This district is noted for its hot springs and sulphur baths, principal among which are Nakanosawa, Numajiri, and Yokomuki. Numajiri is a mining bed of precipitated sulphur, about 50 feet in depth, approximately 500 feet from east to west, and 1,000 feet from north to south. The ore is obtained by tunneling into the bed. The Numanotaira deposits are located on the summit of the mountain and are of volcanic origin, the sulphur being obtained by open cuts into the mass of the deposit. The sulphur rock is transported to the refinery by wire haulage, similar to an aerial tramway. At the refinery the crude product is treated by the dual processes of fumigating and steaming. From the refinery it is sent by wire haulage to Ohara railway station and thence to market. The haulage is known as the Tamamura System, which has been patented in various parts of the world. Steam power is at present employed, but a recent decision of the directors will result in electrical power being used at an early date for all operations.

The operations of the Japan Sulphur Co., Ltd., are directed by various departments. The Engineering Department makes all the wire ropes, rails, and mining machinery required, and also turns out rock-drills of the Ashio and American type. There is a forestry department engaged in the production of all fuel needed for the mining operations and refining purposes, and in the manu-

facture of lumber and wood work, including seasoning of timber for the general trade. The forest area is about 3,000,000 *tsubo*, and 250 men are engaged, the lumber being hauled over $4\frac{1}{2}$ miles of railway and by a 1,200-foot span of wire rope. A general transportation business is conducted over the company's line from Kawageta to Ohara, a distance of $9\frac{3}{4}$ miles, three locomotives, four passenger cars, and 39 freight cars being employed. An elementary school is maintained for the children of the men engaged in the company's service, and there is also a hospital at the mines.

Besides the digging and refining of sulphur rock, the Japan Sulphur Co., Ltd., is engaged in the production of sulphide of carbon, sulphur liquid (concentrated lime sulphur solution), calcium acetate, charcoal, acetone, methyl alcohol, precipitated sulphur, sulphur sticks, powdered sulphur, and flowers of sulphur. These products are manufactured at the Kawageta Refinery. Sulphide of carbon is produced in large quantities and is sold as an insecticide, particularly for the destruction of insects which are injurious to cereal plants. The sulphur liquid is generally used for the destruction of insect life in the rice fields, wheat fields, and orchards, being used by means of sprays, or otherwise. Following is the annual productive capacity of the mines and the refinery: sulphur rock mined, 51,100 tons; refined sulphur, 20,000 tons; stick sulphur, 6,000 tons; powdered sulphur, 2,000 tons; flower of sulphur, 1,000 tons; bisulphide of carbon, 1,000,000 pounds; calcium carbide, 300 tons; concentrated lime sulphur solution, 1,000,000 gallons.

The head office of the Japan Sulphur Co., Ltd., is at No. 12 Kagacho, Kyobashi-ku, Tokyo. The principal officials of the company are: President and Managing Director, Mr. Akira Yamada; Directors, Messrs. Kodo Hiroshi, Yasusaburo Hara, and Komatsu Fukuma; Auditors, Messrs. Tomoso Shinozaki and Masao Inouye. It is proposed to enter into coaling operations in 1918, when the company will acquire and develop certain properties with this object in view.

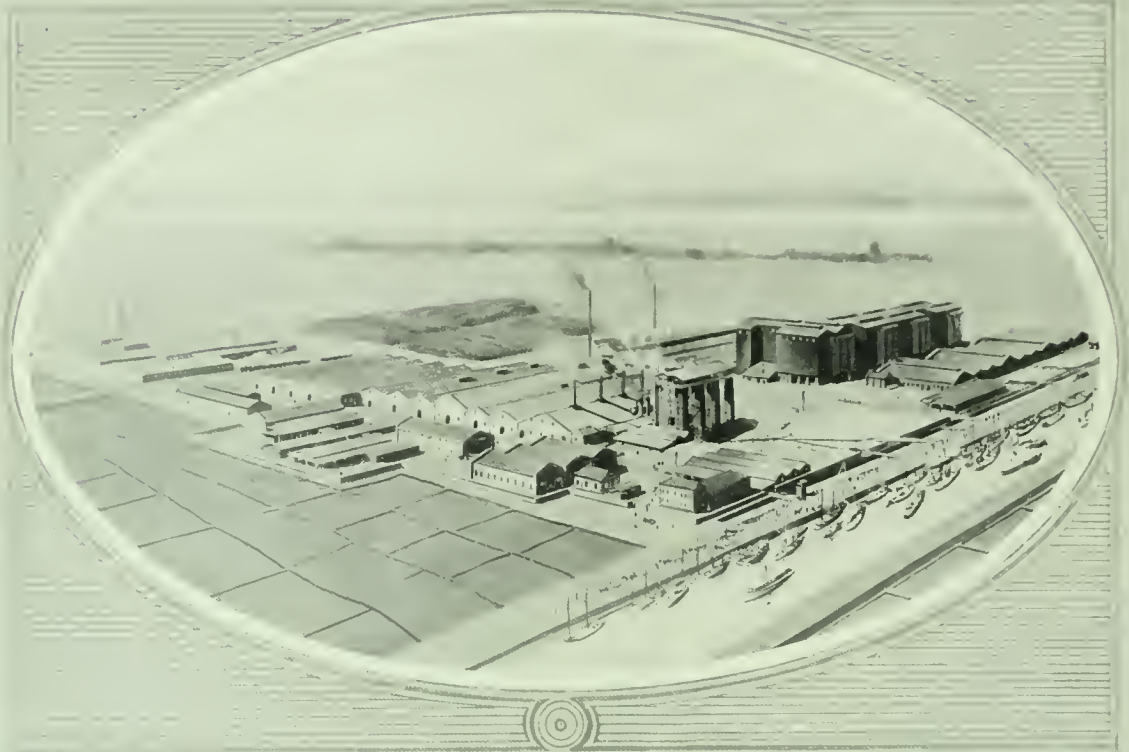
NIPPON CHISSO HIRYO KABUSHIKI KAISHA (JAPAN NITROGENOUS FERTILIZER CO., LIMITED)

THE most highly scientific methods are being applied in the works of the Nippon Chisso Hiryo Kabushiki Kaisha to the industry of producing artificial fertilizers, and other chemical products largely demanded under modern commercial conditions. Not satisfied with a large and varied production by methods that are still availed of by other concerns, this company has purchased a number of foreign patents, among which is

the right to manufacture *Calcium Cyanamide and Sulphate of Ammonia from the atmospheric nitrogen*. As the company has available an enormous and cheap supply of water power, its operations have proved remarkably successful from all points of view.

This company was originally formed in January, 1906, with a capital of Yen 200,000. It was then known as the Sogi Denki Kabushiki Kaisha (Sogi Electric Co., Ltd.). The original purpose of the company was the supply of cheap electric power to two gold mines, namely, Ushio and Okuchi, and to furnish electric light for the town of Okuchi. In April, 1907, the Sogi Denki Kabushiki Kaisha made an agreement with the Nippon Chisso Carbide Company to produce calcium carbide, for acetylene gas making. To carry out this undertaking the capital of Sogi Denki Kabushiki Kaisha was raised to Yen 400,000 and this company erected an electric power station which generates 6,000 kilowatts at the lower part of the Sendai River. At the same time the Nippon Carbide Company installed a new carbide factory at Minamata, Kumamoto Prefecture, where the manufacture of carbide was started, the operation of manufacturing being placed in the hands of a subsidiary to which the Sogi Denki K. K. supplied free of charge, the profits from the carbide factory being shared equally by the two companies. In April, 1908, the company acquired the sole patent right for Japan of the Frank-Caro process of manufacturing calcium cyanamide and sulphate of ammonia from atmosphere, and the capital was increased to Yen 1,000,000. An amalgamation of these companies took place at this juncture, and the name of the new company was changed from Sogi Denki Kabushiki Kaisha to that of the Nippon Chisso Hiryo Kabushiki Kaisha. In October, 1910, the capital was increased to Yen 2,000,000, subsequently being raised to the present figure of Yen 10,000,000.

Since that time the company has developed in several directions and the plan of extensions, shortly to be completed, will give the following productive capacity per annum: calcium carbide, 85,000 tons; calcium cyanamide, 105,000 tons; sulphate of ammonia, 90,000 tons; Portland cement, 600,000 casks, and oxygen, 360 cubic metres per hour. The company owns the following patents: No. 15,481, a method for making nitrogenous compound; No. 16,650, a method for extracting nitrogen from atmosphere with copper; No. 18,642, a method for making carbide into powder in nitrogen gas; No. 18,018, a method for making atmospheric ammonia fertilizer; No. 20,730, a method for making nitrogenous compound from carbide, and patents Nos. 24,317 and 22,678



TWO FACTORIES OF THE NIPPON CHISSO HIROYO KABUSHIKI KAISHA, AT KUMAMOTO, KYUSHU



TEA PICKERS OF SHIZUOKA

for similar processes. Briefly described, the Nippon Chisso Hiryo Kabushiki Kaisha is producing chemicals, nitrogenous fertilizers and by-products by the following processes and for the purposes stated:

Charcoal and Limestone.—A mixture of lime and coal or charcoal is heated in an electric furnace. At high temperature the lime and carbon combine and form calcium carbide. Carbide generates acetylene gas by interaction with water for lighting, and for cutting and welding of iron and steel. Also it is used as raw material of fertilizers.

Atmospheric Nitrogen and Carbide.—Nitrogen, extracted from the atmosphere and crushed carbide; being heated again in electric furnace, calcium cyanamide is formed. This material contains 20 per cent nitrogen and is known as the newest available nitrogen fertilizer.

Sulphuric Acid and Calcium Cyanamide.—When calcium cyanamide is treated with steam the ammonia gas generates and, combining with sulphuric acid, the sulphate of ammonia is produced. This material is used as fertilizer most extensively throughout the world. From the residue of sulphate of ammonia and clay, Portland cement is made.

Oxygen is extracted from the atmosphere and is employed in various industries for welding, cutting, and otherwise treating iron and steel. It is also sold for medical and general purposes.

Nippon Chisso Hiryo Kabushiki Kaisha has two factories in Kumamoto Prefecture, and one factory in Cita Prefecture. There are two electrical generating stations in Kagoshima and three in Kumamoto Pre-

fecture. These electrical plants give the company about 25,000 horsepower at a remarkably low cost, and as it derives most of its chemical products from the atmosphere, it can be seen at once how sound a financial proposition the whole enterprise is. Still, the best way to illustrate the financial condition of the company is to give the figures in the accompanying table.

Furthermore, this company has written off Yen 3,000,000 against its properties and has built up a reserve of Yen 450,000. The company has a strong directorate which

comprises, Mr. T. Nakahashi, President, Mr. J. Noguchi, Managing Director, and Directors, Messrs. S. Ishikawa, Y. Watanabe, R. Toyokawa, and Dr. N. Shiraishi (Doctor of Technology). The Auditors are Messrs. K. Kagami and K. Hori. Baron Kondo is adviser to the company. The head office is at Tosabori-dori, Nishiku, Osaka.

| YEAR | NET PROFIT | DIVIDEND |
|------|------------|--------------------|
| 1906 | ..... | ..... |
| 1907 | 7,663 | 10 $\frac{1}{2}$ % |
| 1908 | 42,754 | 10 $\frac{1}{2}$ % |
| 1909 | 93,975 | 10 $\frac{1}{2}$ % |
| 1910 | 142,443 | 10 $\frac{1}{2}$ % |
| 1911 | 145,992 | 9 $\frac{1}{2}$ % |
| 1912 | 286,238 | 10 $\frac{1}{2}$ % |
| 1913 | 382,622 | 10 $\frac{1}{2}$ % |
| 1914 | 463,536 | 9 $\frac{1}{2}$ % |
| 1915 | 1,608,493 | 13 $\frac{1}{2}$ % |
| 1916 | 2,451,197 | 17 $\frac{1}{2}$ % |

TOKYO SULPHURIC ACID CO., LIMITED
(TOKYO RYUSAN KABUSHIKI KWAISHA)

IN the matter of chemical production Japan has rapidly come to the front among the nations of the world, and she is now almost independent of foreign sources of supply for most of the leading commercial requirements. This result has been brought about by the special efforts of a small group of farseeing men, who have devoted their time and money to building up the chemical industry, and among them must be prominently placed Mr. Bokushin Oi, President, and Mr. Seinosuke Shibata, Managing Director, of the Tokyo Sulphuric Acid Co., Ltd.



WOMEN PICKING TEA



BIRD'S-EYE VIEW OF THE FACTORY OF THE TOKYO SULPHURIC ACID CO., LTD.

Mr. Oi, with Mr. Shibata and five other gentlemen, established the business now conducted so successfully by the company, in 1905, the capital originally at their disposal being Yen 250,000, as against the Yen 1,500,000 now available. From the inception of this special branch of the chemical manufacturing industry, the company has been noted for its progressive policy, and to it is due the credit of many advancements in the methods of manufacture. As an example it may be said that although sulphuric acid is produced in large quantities in Japan, most of it obtained by means of the "lead chamber" system, the Tokyo Sulphuric Acid Co., Ltd., is now leading the field with the production of anhydrous and fuming sulphuric acids, under a special patented process, the rights of which were acquired in 1916. So far anhydrous and fuming sulphuric acids have not been produced perfectly, or on a large scale, in Japan, except in the Government plants. For some industries, such as the refining of mineral oils, the manufacture of dyestuffs and explosives, and the production of nitro-compounds, etc., anhydrous and fuming sulphuric acids are absolutely indispensable. Realising this need, the Tokyo Sulphuric Acid Co., Ltd., although producing almost every kind of acid under the best conditions, set out to supply this special demand. The patent rights of making acid by the most modern contact system were purchased from the Tentelov Chemical Industry Company of Petrograd, so that the company now has the monopoly for Japan and her territories for producing anhydrous and fuming sulphuric acids by this process.

The Tokyo Sulphuric Acid Co., Ltd., erected and installed a special factory with this system, and it is expected that the new product will be marketed in the near future, when the chemical industrial field of Japan will be well supplied with pure and low-priced sulphuric acid. At present the company has an annual output of 35,000 tons of sulphuric acid, valued at Yen 398,000. The installation under the old system comprises the lead chamber method with an ore burning furnace and lead room and acid refining and decocting arrangements. The new contact system comprises the ore burning furnace and various arrangements. There are also the necessary air compressors, gas compressors, water raisers, etc., the whole plant being perfectly equipped for the production of every class of commercial acid. Motive power is derived from electricity and steam. An excellent factory site of 10,000 *tsubo* is owned by the company at Oshima-machi, in the outskirts of Tokyo. The buildings are very extensive and cover 2,500 *tsubo*, there being no fewer than 40 spans of roof, the



DRYING TEA LEAVES OVER A CHARCOAL HEATER

factory being constructed on the modern "bay" system. At present there are 150 employees, the wages bill amounting to Yen 50,000 per annum, but when the factory is being operated at its full capacity this number will have to be increased. Sulphuric acid of 65 and 66 degrees is sold very widely throughout Japan, and the company has also developed an export trade with the South Seas, India, China, and Russia.

The head office of the Tokyo Sulphuric Acid Co., Ltd., is at No. 7-chome, Oshima-machi, Minami-Katsushika County, Tokyo Prefecture. Mr. Bokushin Oi is the President-Director, Mr. Seinosuke Shibata, the Managing Director, and other Directors are Messrs. Jozo Suzuki, M. P., Kotaro Uyeda, Ikusaburo Hirano, and Sosuke Nakagawa. The Auditors are Messrs. Tarobei Akita and Matayemon Tazawa.

KANTO SANZO KABUSHIKI KAISHA

ONE noteworthy direction in which rapid and substantial progress has been made in the industries of Japan, is in connection with the manufacture of chemicals, fertilizers, dyestuffs and similar lines, upon which the country, like many others, was largely dependent upon Germany before the war. Of course, the war has given rise to a number of new enterprises to exploit this wide field of commercial activity. The pioneer and most substantial of all such concerns is, however, the Kanto Sanso Kabushiki Kaisha, or the Kanto Acids and Alkali Co., Ltd. Originally the business which has since been developed

on such a wide scale by the Kanto Company was a State enterprise, the Japanese Government, under the policy which then prevailed of fostering certain industries, having established a factory at Oji, Tokyo, in 1885, for the manufacture of acids and other chemicals. The works were continued by the Government for ten years, without any marked progress being made, except to demonstrate that the manufacture of such lines was a practical business in Japan, and then, in 1895, the Kanto Sanso Kabushiki Kaisha was formed and took over the Government interest. The founders of the company were its present directors. Their original capital was only Yen 95,000.00, as against the present capital of Yen 5,000,000.00. The guiding spirit in the company is Mr. Y. Tanaka. From the inception of its operations the Kanto Company made progress, and undoubtedly the success which attended its pioneer efforts in this new field of industry, encouraged other concerns to open up business in the same line and thus help to give Japan another powerful commercial outlet for her activities and resources.

The Kanto Sanso Kabushiki Kaisha is engaged in the manufacture and sale of sulphuric acid, hydrochloric acid, phosphoric acid, caustic soda, sodium sulphide, lime sulphur liquor, bleaching powder, copper, zinc, hydrosulphide, superphosphate, mixed fertilizers and several other chemicals. The head office and principal works are at Oji, Tokyo, and branches are established at Kobé and Osaka. The company has its own mines at Niigata-ken and Akita-ken, from which are derived a large quantity of the raw materials used in the manufacture of the commercial products. Excluding the mines, the works and factories of the Kanto Company cover over 60 acres. The buildings are mainly of brick and concrete, erected according to the most approved designs and installed with the latest plant and machinery for the treatment of the raw material. About 1,200 hands are employed regularly, and the pay-roll totals over Yen 400,000.00 annually. In addition, about a thousand coolies are employed as casual labourers, being hired by the day. The annual output of the company's works is approximately Yen 10,000,000.00 in value. This is disposed of in the Japanese market, and large quantities are exported to Japanese possessions, China, Australia, New Zealand, the South Pacific islands, Africa, India and elsewhere.

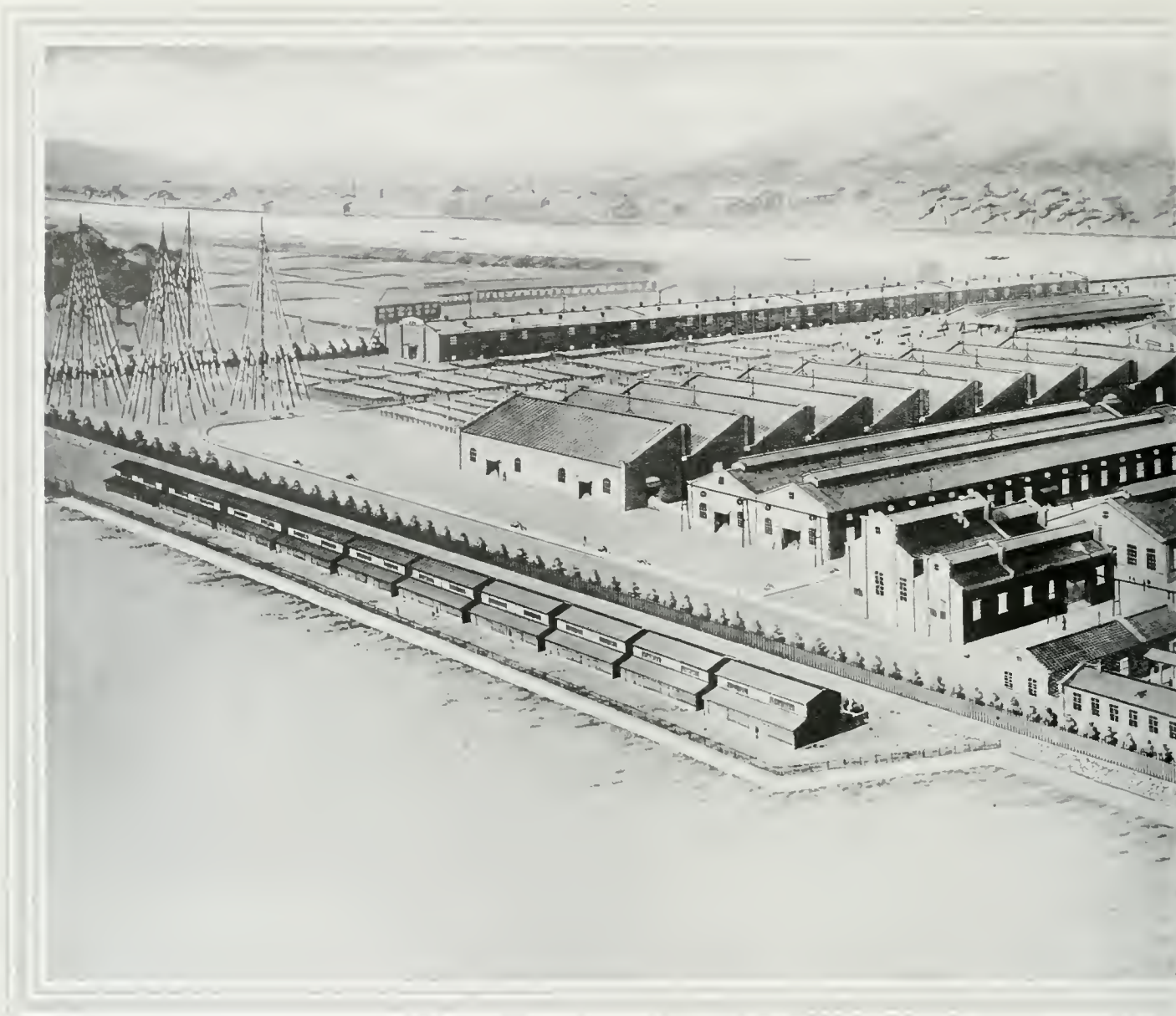
Following are the officers of this important enterprise: President, Mr. Y. Tanaka; Managing Director, Mr. U. Ishikawa; and Directors, Messrs. Y. Konishi, A. Fukuhara, and T. Moritomo.



GENERAL VIEW OF THE WORKS OF THE KANTO SANSO KABUSHIKI KAISHA (KANTO ACIDS AND ALKALI CO. LTD.), ON THE SUMIDA RIVER, TOKYO



ELECTRO-CHEMICAL INDUSTRY CO., LTD. (DENKI KAGAKU KOGYO KABUSHIKI KAISHA): FACTORY AT TOMAKOMAI—
FACTORY AT BUJUN—FACTORY AT OMUDA



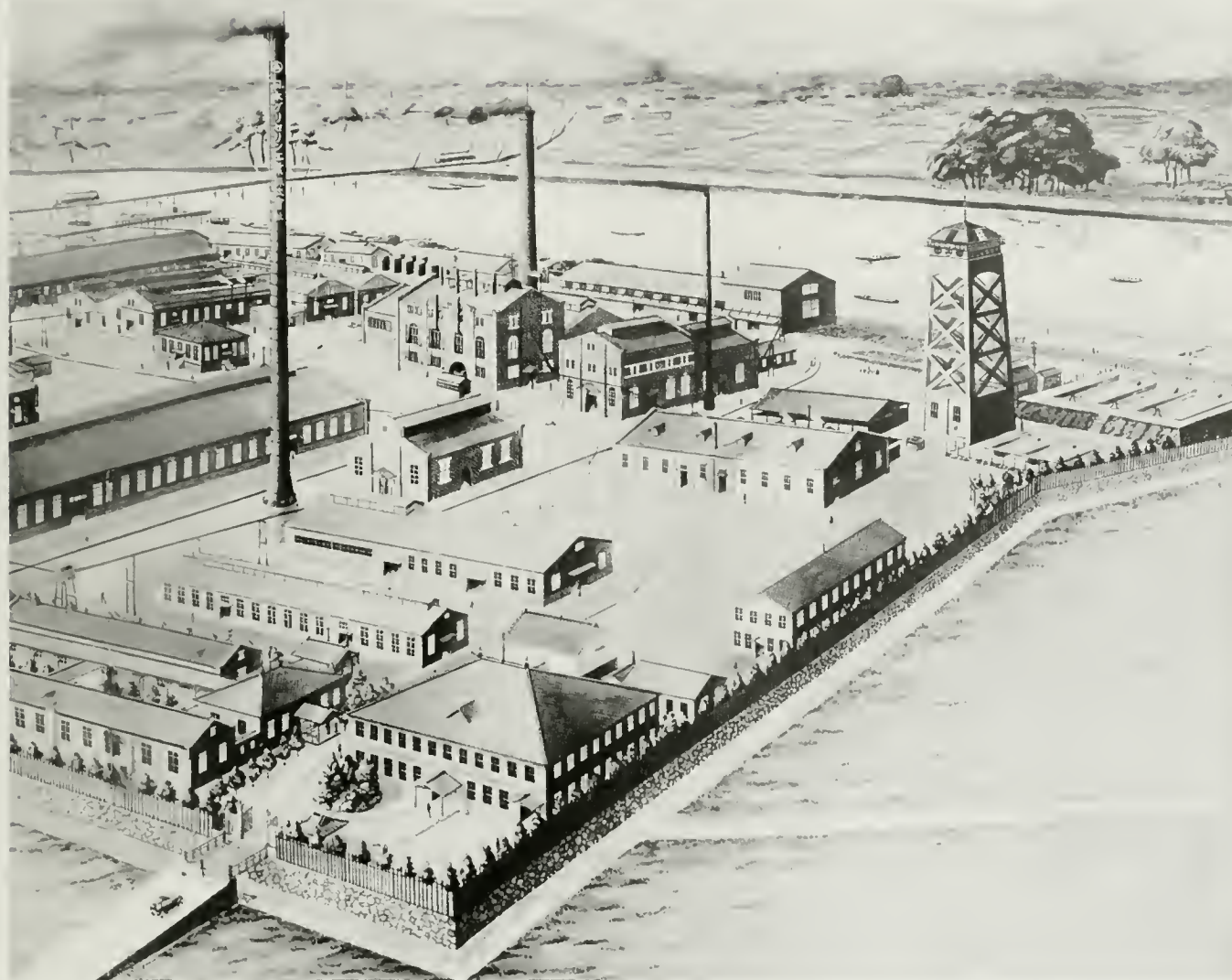
GENERAL VIEW OF THE FACTORY OF THE

THE ELECTRO-CHEMICAL INDUSTRY CO.,
LIMITED

A RAPID development has taken place in the chemical and fertilizer industries in Japan, and the Empire is almost independent of foreign products. This result has been brought about by the war conditions compelling greater attention to the industries on the part of the Japanese, but it must be admitted that some of the scientific men of Japan only needed a little opportunity to enable them to show what they could do. Foremost among the chemical manufacturers and experts of Japan is Mr. Tsuneichi Fujiyama, who has given many years to the study of the science, and is the inventor of several processes by which commercially required chemicals may be satisfactorily and cheaply produced. Under the auspices of the Mitsui family, Mr.

Fujiyama established the Hokkai Carbide Works at Tomakomai, Hokkaido, in May, 1912, and after conducting this enterprise for three years, he transferred all the plants to the Electro-Chemical Company, Limited, or the *Denki Kagaku Kogyo Kabushiki Kaisha*, which was formed for the purpose with a capital of Yen 5,000,000. The promoters of this company were Baron E. Shibusawa, Messrs. Takashi Masuda, Takuma Dan, Kyohei Makoshi, Shintaro Ohashi, Toyoji Wada, Nagabumi Ariga, Jugoro Otaguro, Senkichi Hayakawa and others. The new company acquired the patent rights of Mr. Fujiyama, and was also fortunate in securing his services as a director. His invention, a patent granted by the Japanese and almost all other governments of civilised countries, consists in making carbide of lime absorb

nitrogen, the product, *viz.*, nitrate of lime, being used as an effective fertilizer in that condition or transformed into sulphate of ammonia by adding sulphuric acid thereto. These are among the principal products of the Electro-Chemical Industry Co., Ltd. The company started operations on a large scale in May, 1915, and has extensive works at Omuda City, Fukuoka Prefecture, and also at Bujun, South Manchuria. The plants cover an area of about 130,000 *tsubo*, and give employment to a staff of 150 officials and 1,200 workmen, the annual wages and salary bill being over Yen 200,000. Chemicals of various kinds are produced to the value of over Yen 6,000,000 per annum, and apart from the strong local demand for the company's manufactures, an extensive export trade is being done in China, Hawaii



JAPAN GLYCERINE INDUSTRY COMPANY, LIMITED

Australia, the East Indies and elsewhere. The company is well represented abroad by the Mitsui Bussan Kaisha and its agencies are to be found in all the branches of that concern abroad. That the undertaking of the company is a profitable one may be seen from the fact that though it has been established less than three years it paid a dividend in the last half of 1916 of 12 per cent ordinary and 5 per cent special, and for the first six months of 1917 the dividends were 12 per cent ordinary and 10 per cent special. The officers of the Electro-Chemical Industry Co., Ltd., are: President, Mr. Kyohei Makoshi; Managing Director, Mr. Jugoro Otaguro, and Director, Mr. Tsuneichi Fujiyama. The head office of the company is at No. 4, Honkawaya-cho, Nihonbashi-ku, Tokyo.

THE JAPAN GLYCERINE INDUSTRY CO., LIMITED

THE manufacture of glycerine and kindred products is not a very old industry in Japan, and it does not appear to have been successfully conducted before the Nippon Glycerine Kogyo Kabushiki Kaisha, with expert direction, took over the business. Prior to that time, there were several concerns in existence. The promoters of the Japan Glycerine Industry Co., Ltd., formed a company with a capital of Yen 3,000,000, under the auspices of the Government to take over the Teikoko Gyoyu Seisei Kabushiki Kaisha's factory and plant, as well as that of the Nippon Seiyu Kogyo Kabushiki Kaisha. The Imperial Government entered into an arrangement with the company under which a return of eight per cent on the capital was guaran-

teed, and the company started operations on March 1, 1916. For the first business period the company received a small subsidy from the Government to make good the deficiency on the working, but since that time the concern has been able to pay dividends on its own account, despite the fact that raw material rose three to five times higher than the pre-war prices, and that manufactured articles required in the industry were 60 to 70 per cent higher. War prices have materially affected the company's operations, and the sooner the war ends the better from the point of view of the shareholders in the Japan Glycerine Industry Co., Ltd. Nevertheless the company paid an eight per cent dividend in its second term, and a similar dividend with an additional special dividend of one per cent in the third period. With



DWARF TREE, OLDER THAN HIMSELF

the eight per cent dividend guaranteed by the Government for a term of ten years, the company's stock is an attractive investment, and it is not surprising to learn that when, after eighteen months of prosperous trading, the capital was doubled and made Yen 6,000,000, the public readily provided the funds.

This company manufactures glycerine, oleic acid, stearic acid, soapstock (fatty acids), stearine pitch, etc. Beef tallow is imported from Australia and China. The detailed lines of production are as follows: glycerine is made for explosives, medical and industrial purposes, tobacco curing, printing, toilet purposes, technical and other uses. Stearic acid is made for candle-manufacture and carbon papers. Oleic acid is produced for the woollen, cotton, and silk industries, and as a base for metal polishes. Soapstock is for making soaps, for sizings on piece goods, and for metal polishes. Stearine pitch forms the base of such things as ships' paint, water-proofing, for coating electric wires, for asphalt, for water-proof paper, etc. In its soft form it is used for heavy steel plate rollers; and for electrical machinery and dry batteries, the hard pitch is used. Consumers of the company's products are: the Imperial Army and Navy Departments, the Tobacco Monopoly Bureau, Imperial University, woollen goods factories, silk and cotton factories, cotton piece goods printing factories, chemists generally, and the soap-makers. An export trade is done with Russia, America, China, and India.

The Japan Glycerine Industry Co.'s main factory is at Tsukuda, Chifune Village,

Nishinari, Osaka, and there is a branch factory at Nunoya, Kawakita, Osaka Prefecture. The head office and main factory cover 23,000 *tsubo*, and the branch factory extends over 8,131 *tsubo*. Buildings are of brick, reinforced concrete, or wood, and are of three stories. The total area covered by buildings is 3,766 *tsubo*. Steam is employed for power purposes, and the plant comprises the very latest machinery. About 500 hands are engaged. When the works are

entirely completed, according to present plans, the output will reach about 17,500 tons of all the products enumerated, per annum, representing a gross sales value of Yen 12,100,800. The Board of Directors and Inspectors consists of the following: Directors, Messrs. S. Hirata (President), T. Fujimoto (Managing Director), Y. Hiraga (Professor of Technology), S. Uyemura, C. Kase, H. Soma, and G. Koizuka. Inspectors, Messrs. R. Iwasaki, R. Miura, and M. Taku.

THE JAPAN ACETIC ACID MANUFACTURING CO., LIMITED

The success of the Japan Acetic Acid Manufacturing Co., Ltd., or Nippon Sakusan Seizo Kabushiki Kaisha, is another instance of the determination with which Japanese manufacturers have fought to establish industries the operation of which tends to make the Empire self-contained and independent of foreign products. The history of the concern also demonstrates the persistence with which the pioneers of many of these industries have held to their original plans, overcoming many difficulties, and steadily solving one problem after the other as it arose.

The inception of the large business now controlled by the Japan Acetic Acid Manufacturing Co., Ltd., dates back to May, 1894, when a small factory was started by the present Managing Director, Mr. Shoichiro Katow, as a private enterprise. The works were established in Ochiaimura, Kamitsuga-Gun, Tochigi-ken, machinery was imported from Europe, and the manufacture of certain products started in August of



OX CART



JAPAN ACETIC ACID MANUFACTURING CO., LTD.: GENERAL VIEW OF AKAYA FACTORY—GENERAL VIEW OF HONJO FACTORY—THE OSAKA FACTORY, UNDER CONSTRUCTION, 1915—THE SHIOBARA WOOD DISTILLING WORKS

1894. Mr. Katow had to overcome many difficulties in his effort to manufacture locally the products which had hitherto been imported, but he plodded along and had the satisfaction of seeing his business gradually extend, and of arousing some interest in his work among other manufacturers. In one direction in particular was this the case, *viz.*, among the charcoal manufacturers, whose attention was directed by Mr. Katow to the profitable production of acetate of lime, by means of an economising method of utilising waste smoke from their kilns. Mr. Katow's business continued to increase to such an extent that in July, 1903, he transformed his private concern into a joint-stock company with a capital of Yen 100,000, and concentrated chiefly on the production of acetic acid and acetates. Despite the growing demand for these chemicals in Japan, the new company did not prosper because it could not compete with the foreign products which were far superior in quality. Mr. Katow knew where the difficulty lay, and believing that he could overcome it and turn out chemicals equal to those of foreign production he approached Baron Eiichi Shibusawa, Baron Kihachiro Ohkura, Mr. Kyohei Makoshi, Mr. Chosaburo Uyemura, and other prominent business men, and succeeded in enlisting their interest and support in his work. With such powerful assistance the capital of the company was increased to Yen 300,000 in September, 1906, and in the following year the works were extended, and machinery of the most modern type was installed for the production of acetic acid of the purest quality. The new plant was put in operation in February, 1908, and the results justified all Mr. Katow's expectations. The products speedily earned an excellent reputation for their quality, and though a strong foreign competition had still to be faced, the company's output increased, while the quality improved, and since 1911 the foreign product has been almost entirely driven out of the Japanese market. The manufacture of acetone was commenced in February, 1909, when new machinery was installed for the purpose, and this undertaking has also met with great success. The Japan Explosives Co., Ltd., which manufactures gun powders for the Imperial Japanese Navy, looks exclusively to the Japan Acetic Acid Manufacturing Co., Ltd., for the supply of all its requirements of acetone, and, besides this, the company's product is in much demand for the manufacture of celluloid and artificial leathers.

In spite of the great development which had taken place in the manufacture of acetic acid and acetone, the supply of the raw material, acetate of lime, had remained inactive for a

number of years, and the greater part of the demand had been met by importing from the United States. Realising the situation in July, 1911, the Japan Company established a large wood distillation works on the European model in Shiobara-mura, near Nikko. This gave rise to the company's trade mark, "Maru-ko," "maru" meaning a circle, and "ko" being taken from the name of the popular visiting place. To carry out this undertaking the capital of the concern was increased to Yen 600,000, and in August, 1911, distillation was started in what is regarded as the model works of its kind in the Orient, where acetate of lime, crude methyl alcohol, and charcoal and wood tar are produced, graded up to the best foreign standards. The output of these works being insufficient to meet the demand for acetate of lime, the company in 1915 established four other works in the provinces of Shima, Akaya, Sennai, and Kurisawa. Meantime the manufacture of formalin from crude methyl alcohol had been started by the company in November, 1913, when machinery of the latest type was imported from Europe. On the organisation of the Toyo Chemical Co., Ltd., in 1915, the Japan Acetic Acid Manufacturing Co., Ltd., made over to that company all its formalin manufacturing plant, and has since supplied the Toyo Co. with the materials for producing formalin. This step was taken in accordance with the regulations of the Government under the Encouragement Act for the production of dyestuffs and chemicals. The demand for acetic acid having still further increased, and the foreign product being almost out of the market, the company established a second factory at Osaka in December, 1913, and in May, 1914, they purchased the Osaka Acetic Acid Company, Ltd., and brought the works into the organisation under the name of the Owada Factory. To make this purchase the capital was increased to Yen 680,000. In June, 1915, the capital was further increased to Yen 1,300,000, at which figure it stands to-day. The company has, under the prosperous conditions brought about by the great war, opened up foreign markets such as Great Britain, France, Russia, China, India, Dutch East Indies, Australia, French Indo-China, the Malay States, the Philippines, etc., and its factories are working at full capacity to execute the orders.

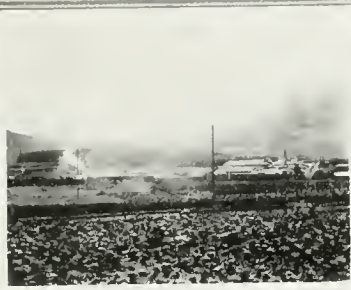
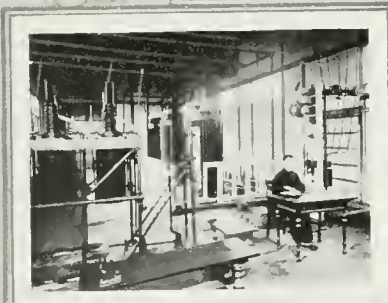
The factories of the Japan Acetic Acid Manufacturing Co., Ltd., are modern buildings of brick and stone, and together with the offices they cover about 25,000 *tsubo*. A staff of 75 experts and administrative officers is engaged as well as an average of about 1,000 labourers. The amount paid annually in wages runs to Yen 85,000. The annual output of the company is valued at Yen

3,200,000, and the products include: acetic acid, graical, 96 per cent, 98 per cent, 99 per cent—100 per cent (pure and technical); acetic acid, 35 per cent, 36 per cent, and 48 per cent (pure and technical); acetate of lime, acetone, sodium acetate and lead acetate (crystal, pure and technical); methyl alcohol, 95 per cent, 99 per cent, and 99.5 per cent (refined and crude). The prosperous condition of the company may be gathered from its development as recorded above, and from the fact that it has in hand reserve funds totalling Yen 542,524. The head office and main factory of the company are located at No. 3 Yanagishima, Yokogawa-cho, Honjo-ku, Tokyo, but the general business is transacted at its branch office, No. 4 Yoro-cho, Nihonbashi-ku, Tokyo. Following are the principal officers of the Japan Acetic Acid Manufacturing Co., Ltd.: President, Mr. K. Makoshi; Managing Director, Mr. Shoiehiro Katow; Directors, Messrs. C. Uyemura, H. Ohkawa, C. Shiga, T. Kitagawa; Auditors, Messrs. N. Ohta, K. Ohkura, T. Shibusawa; Advisers, Baron Kihachiro Ohkura and Mr. K. Kume (Bungakuhakushi); General Manager, Mr. T. Miyahara (Hogakushi), and Chief Engineer, Mr. K. Kobayashi (Hogakushi).

TOYO CHEMICAL INDUSTRIAL COMPANY, LIMITED

THIS company was established for the refining of chemicals, the manufacture of drugs, and although not indicated by the business title, for mining operations on a fairly extensive scale. Well installed works and extensive godowns of the company are located in Nagano, Miye, and Fukui Prefectures, the combined sites measuring nearly 9,000 *tsubo*. Chloride of potash, iodine, sulphate of potash, carbonate of potash, chloride of soda, chlorate of potash, acetate of lime, permanganate of potash, etc., are produced on a large scale. The present mining concessions held by the company represent an area of 2,442,900 *tsubo* located in the Aomori, Akita, Fukushima, Fukui, and other prefectures. They produce gold, silver, copper, zinc, and lead in quantities, which, considering that the development may be regarded as still in the initial stages, augurs a very bright future for the enterprise.

The offices of both the mining and chemical departments of the business are located at I-chome, Fushima-machi, Higashi-ku, Osaka, though each carries its separate staff. The former is equipped with a small but modern ore-reducing plant, and the latter with a well installed chemical laboratory, affording unusual facilities for the work of the mining and chemical experts in charge. The President of the company is Mr. Gentatsu Shimidzu.



TOYO CHEMICAL INDUSTRIAL CO., LTD.: ELECTROLYTIC COPPER REFINING PROCESS—PART OF THE POWER PLANT—TRANSFORMERS USED IN CONNECTION WITH THE ELECTROLYTIC COPPER REFINING PLANT—THE COMPANY'S WORKS AT KASHIWABARA—REFINING CORAL POTASH—THE WELL-INSTALLED CHEMICAL LABORATORY—A CORNER IN THE CHEMICAL DEPARTMENT



THE FAMOUS CASTLE WALLS AND MOAT CONSTRUCTED BY IYEFASU

XVI. TEA

SHIZUOKA — TEA — COMMERCIAL NOTICES

SHIZUOKA, the capital of the Prefecture of the same name of the Province of Suruga, lies 120 miles to the southwest of Tokyo by the Tokaido Railway, and has a population of about 55,000. Situated on the highway connecting Kyoto with Tokyo over which the feudal lords with their numerous retainers had to pass in former days, Shizuoka has played an important part at various periods of Japanese history. It was there that Iyeyasu, the founder of the Shogunate, retired *more japonico* in his latter days and where he died. On the Restoration of the Imperial Power in 1868 this great example was followed by Keiki, the last of the line, who lived in seclusion in Shizuoka up to 1897, when he removed to Tokyo. Many mementoes of its connection with names famous in history are to be found in the art objects treasured in the neighbouring temples.

The town is pleasantly situated and, being protected from the northern blasts by the great mountain range which embraces the lofty Koshu Shirane-san, Akaishi-san and others, and from the bleak northeasterly winds by the Peninsula of Izu, it enjoys a much more equable and a milder climate than most places on or near this coast. Tea is the chief product. It ranks second only to that of Uji near Kyoto, and the thick tea-bushes, symmetrically trimmed and laid out, which

cover the low-lying hills and the ground in this neighbourhood form a pleasing feature of the landscape to the passing traveller. The proximity of Shizuoka to the port of Shimizu has largely assisted in the development of the tea industry, shipment of the staple now being made thence direct to America and Canada, the chief buyers, instead of, as formerly, from Yokohama.

The principal manufactures of Shizuoka consist of a cheap form of lacquer-ware, bamboo-ware, and paper goods. The porcelain, known as Shidoro-yaki, which bears a marked resemblance to the famous Bizen ware, is produced in the Province of Totomi, now part of the Shizuoka Prefecture. The egg-shell porcelain cups come from the Province of Mino.

Though Shizuoka, like most Japanese provincial towns, is dull and of little interest in itself, the temples in its immediate vicinity and the noted spots within easy reach afford attractions to the tourist, besides making it a pleasant place at which to break the long journey between Kyoto and Tokyo. Nothing remains of the old feudal castle except the walls and moats. The prefecture and other official buildings stand within the grounds. There is also an imperial villa just outside. Of the temples, Rinzaiji, belonging to the Zen sect of Buddhists, is noted for its connection with Iyeyasu, and its treasures, especially the screens, scrolls, specimens of lacquer and porcelain, and *kake-mono* by Kano Masanobu, Chin Nambu, and other old masters. The temple of Sengen, though devoted to Shinto worship, is constructed in the most ornate Buddhist style and decorated with excellent carvings. Some of the compartments contain very fine specimens of paintings by artists of the Kano school.



BUDDHIST TEMPLE AT SHIZUOKA

The grounds which surround this temple are noted throughout Japan for their more than usual beauty. Also, that great company of world travellers that has visited the Land of the Rising Sun has spread the fame of these temple parks abroad, so that Shizuoka and its temples are known in all lands. The exceptionally fine specimens of wood carving to be seen in the Temple of Sengen constitute another claim on the traveller's attention. Altogether, Shizuoka offers much of interest to the sightseer from other lands, both in the way of modern industrial enterprise, as displayed by the great tea houses, and in historical monuments and natural beauty.

Some six miles to the east of Shizuoka lies Kuno-zan, one of the most interesting and picturesque spots on this part of the coast. It is a steep fortress-like hill, though only 900 feet high, and was the first burial-place of the illustrious Iyeyasu. The magnificent mausolea at Nikko, whither his remains were removed in 1617, are but more elaborate examples of the shrine at Kuno-zan erected in his honour.



STREET SCENE IN SHIZUOKA



GENERAL VIEW OF THE CITY OF SHIZUOKA



A "TEA GARDEN"

TEA

By CHARLES E. ATWOOD, Vice-President of the J. C. Whitney Company

IT is interesting to note that as far back as history records, the use of tea as a beverage has been connected with mankind; not at first, perhaps, in the exquisite perfection that now marks it, but always as a benefit, from the time of its earliest history when taken as a medicine, to the present day,

when it serves to refresh and stimulate and vitalise. In the earliest Chinese records, the tea plant is mentioned, and from China it has been transplanted to the various countries now interested in its production. Wherever cultivated it forms a large percentage of the products of the country, whether it be Green or unfermented tea, or Black fermented sorts from China; unfermented tea from Japan; semi-fermented from Formosa, or fully fermented teas from Ceylon, India, or Java.

In the earliest ages tea was used as a medicine and, with the Chinese, believed to have power not only to relieve fatigue, but to delight the soul, fortify the will, and improve the eyesight. It was even applied externally for various ailments. Monks and priests used it in ritualistic services, with even a patron saint to aid. Many ceremonies were quite incomplete without the introduction of a Tea Service, which lent no detrimental effects but, on the contrary, was felt to bring into harmony everything that had to do with the development and the movements of the peoples. From this historical past we have moved down through the ages, with tea ever producing "the cup that cheers but does not inebriate," until it has become a real benefactor, helping the human race to overcome its fatigue, to enjoy its foods, to satisfy its thirst, and to bring gladness to the heart.

It is wonderful how the development of the tea plant in the various countries has produced beverages that take on a variety of qualities, from the very light, thin, unfermented teas producing pale liquors, to the thick, heavy liquoring sorts, producing infusions as thick as coffee. To really discriminate in tea has become a real attainment, reached by few and by them only through years of study and application.

While climatic conditions, together with favourable positions of tea gardens on the mountain sides or in the higher altitudes, have much to do with the qualities of various teas produced, yet this variation is enhanced and



FLOWERING TEA

more fully developed by the method of procedure in the curing or firing of the leaf. When it is known that the tea plant is the same species, whether from the mountains of Darjeeling, India, producing the thick, heavy liquoring kinds, or from the hills of Japan, with its mild, bright liquoring sorts, it can be seen at once that the method of culture or manufacture has much to do with the varieties that are offered to the consumers throughout the entire world. We need, therefore, to distinguish between the methods of manufacture and to note that in the production of so-called Green tea, that may be had from China under the names of Gunpowder, Imperial, and Young Hyson, or from Japan. Whether called Natural Leaf, Basket Fired Leaf, or Pan Fired Leaf, these teas may be classed as unfermented for the reason that the leaf is transferred, as rapidly as possible after being picked, to small out-houses stationed in close proximity to the tea fields, where the leaf can have heat or steam applied. This process at once seals the pores of the leaf, drying up the natural sap and thus preventing the leaf from fermenting or oxidizing. After this, the leaf can be handled in many forms that show in the variety of colors and sizes offered in trade, but its character has been fixed by this process, and after that it is

but a matter of sorting and sifting and blending, through which process the tea travels. After receiving a second firing, either in the pans set in masonry in the interior of China, or in the more up-to-date firing pans and wicker baskets of Japan, the care of the tea is definitely fixed or set, and it becomes the finished product traded in throughout the world.

From this we turn to the semi-fermented teas of South China, exported from the market of Foochow, and the Formosa teas, brought from the island from which it takes its name, both of which kinds have been allowed to partially ferment by remaining in withering trays so that the leaf has taken on a semi-oxidization. Afterward the leaf is fired and fixed in the particular form that produces the distinguishing features of its infusing or steeping qualities.

From this we turn to the teas of India, Ceylon, and Java, where we find that the growers believe that a better beverage is produced by allowing the leaf to become fully fermented—done by allowing the leaf to remain in withering rooms so oxidization is completed before it is taken into the firing rooms, there to be cured so as to produce the dark, heavy liquors that constitute the particular character of these teas.

Thus we see that there are three general classes of tea, covering the entire tea world; namely, fermented, semi-fermented, and unfermented. This is the first step in learning the A B C's of tea.

While characters are dependent in a large measure upon climatic conditions, the elevation of the plantations, the care in matters of cultivation and fertilisation, yet grades and values are produced through the manipulation of the leaf. Discrimination is required, in the first place, in the early plucking of the leaf; secondly, in the care with which it is handled in its curing process; and thirdly, in the sifting out or separating of the leaf.

This latter process may be handled in the more crude method used in China, winnowing by hand—placing the tea in bamboo trays and so manipulating it that different sizes of leaf are thrown off of the trays in different piles, or by the use of machine sieves, over which the leaf is passed and separated in different sizes for use in making up the various grades. This separation, or sortation, becomes one of the features of each tea estate, as the object to be attained is the sorting and blending of the leaf into the forms best suited for the market to which the particular tea is destined.



ANOTHER GARDEN SCENE



WILTING THE TEA LEAVES IN THE SUN

In the case of the fermented teas of India, Ceylon, and Java, these sortations, or separations, take on characters known to the trade under various names, which designate the character of the leaf as finally offered for sale; namely, Flowery Orange Pekoe, Broken Orange Pekoe, Orange Pekoe, Broken Pekoe, Pekoe, and Pekoe Souchong. While in Japan and Formosa there may be no significant names in common use, yet to those

engaged in actual production of tea, their grades may be known as Choicest, Choice, Finest, Fine, Superior, Good-common, and Common sorts. In China, the Green or unfermented leaf is simply classed generally as Gunpowder, Imperial, and Young Hyson, although Gunpowder and Imperial may be known as Extra-firsts, Firsts, Seconds, and the Young Hyson as Chun Mee, Foong Mee, Sow Mee, Firsts, Seconds, Thirds, and

Fourths,—all these names indicating grades and sizes of leaf.

We should now be fairly intelligent as to method of manufacture and general characters of various teas, and be prepared to enter into the post-graduate course of tea knowledge—that of distinguishing in the infused leaf, liquor-producing qualities that make the distinguishing features in placing values on the teas. This requires an education of the palate to distinguish flavours, and of the smelling senses to note aroma, which can only be developed by years of practice. When it is considered that teas are graded down to as small margins as a quarter of a cent, with prices varying from fifteen cents per pound for the common sorts, to as high as one dollar per pound for the choicest teas—import costs—it is at once recognised that to become an expert in the handling of this product is a matter of extensive education.

THE J. C. WHITNEY COMPANY

THE corporation that becomes the subject of this sketch came into its present form of organisation in the year 1905, although the men comprising this company have been identified with the tea trade as far back as 1870, when associated with the firm of J. W. Doane & Company, to which firm they became the successors.

Upon the incorporation of the J. C. Whitney Company, the studied policy of the organisation to put itself in active touch with the growers of all kinds of teas, took form in the sending to the Orient of a staff of tea experts, who had been trained in the United States and Canada. These experts had knowledge, from personal touch, of the exact needs of each particular buyer in the very large territory, comprising various sections, each having its own peculiar requirements, which knowledge would unquestionably fit them to select the special characters of teas demanded by distributors in these sections throughout the United States and Canada.

At the time of writing (1918), this policy has been so developed and perfected that wherever tea is grown, experts from this firm are established, and the policy first adopted has proved its own wisdom in the volume of business actually done—which is second to that of no other firm.

It was in the very early years of the twentieth century that the Japan tea trade began to undergo a marked change and a transition, from the former method of selling raw leaf to foreign firms for final manufacture, to the final curing of teas by the Japanese themselves. At this time, practically all of the Japan tea exported was handled through



DRYING THE TEA OVER A CHARCOAL FIRE, AS IT IS DONE IN A SMALL FACTORY



J. C. WHITNEY CO., LTD.: THE TEA COMPOUND DURING THE PACKING SEASON—VIEW OF THE FACTORY AND GODOWNS—
INTERIOR OF SHIPPING GODOWN SHOWING CHESTS READY FOR DESPATCH—WEIGHING AND PACKING TEA
IN PACKETS—THE TEA TASTER AT WORK

foreign houses, largely English, stationed at the two ports of Yokohama and Kobé. Some influential Japanese began to see an opportunity of organising Japanese firms for the final curing of tea. This sometimes took the form of coöperative companies and the establishment of Japanese firing plants in the various tea-producing prefectures, which movement has continued to develop. At the present time it might be estimated that 70 per cent of the entire Japan crop is finally cured by native re-firers stationed throughout the tea-producing sections of Japan.

It was in the earliest period of these changing conditions that, through wisdom and foresight, the J. C. Whitney Company established themselves in the heart of the largest tea-producing prefecture, and at once became a factor in the manufacturing and shipping at Shizuoka, Japan, being the first foreign firm to take up direct relationship with the Japanese re-firers. The fact that each year has seen an increasing amount of tea bought and shipped, until the firm stands to-day the largest single exporter of Japan tea, is ample proof of the successful results attending the policies adopted. It is also worth noting that the old markets at Kobé and Yokohama are now practically abandoned as tea centres, and every tea-exporting firm of importance now has its headquarters at Shizuoka.

This firm early adopted the method of training its own men in every branch of the business, and has been constantly developing talent and building up an organisation that has no equal in the tea trade, and because of this, its business has been constantly enlarging, both in the buying markets in the Orient and in the distributing sections throughout the United States and Canada.

The personnel of the firm may be stated as being Messrs. Joel C. Whitney, President (now retired); Gustav A. Brecher, Vice-President and Treasurer, who carries the financial burdens of the institution; Charles E. Atwood, Vice-President, and Fred A. Grow, Vice-President and Secretary, who are engaged in the active operating end of the business. Associated with them are men of years' experience in the tea trade, some of whom have become managers of the branch offices of the firm stationed at various cities in the United States, and managers of the firm's buying offices in the Orient. Among them might be mentioned Mr. J. F. Oglevee, stationed at Shizuoka, Japan; Mr. E. J. Hazen, at Shanghai, China, and Mr. F. D. Mott, at Daitotei, Formosa.

HELLYER & CO.

It would be difficult to imagine what the tea industry of Japan would be without



SORTING TEA

the control and direction of the foreign firms which originally developed the trade, and made it one of the staples of the country. From the very earliest days of the opening of Japan to foreign trade and influence, the tea industry has been almost entirely in the hands of foreigners; in fact, it is one of the very few that have not reverted to Japanese control. Associated with the history of the development of the trade are several firm names, known throughout Japan, and in the United States and Canada, with which

countries practically the entire export trade is done. Among these names is that of Hellyer & Co. This business was founded by Mr. Frederick Hellyer, in 1875, who was assisted by his brother, Mr. Thomas Hellyer. Originally the business was conducted from Kobé, and later at Yokohama, but when the centre of the tea industry shifted to Shizuoka, Hellyer & Co. established their factory there, and made it their headquarters for Japan.

The firm's factory and plant are among the largest and most completely equipped



WEIGHING TEA LEAVES WITH PRIMITIVE SCALE



HELLYER & COMPANY: TEA TASTER AT WORK — SCENE IN THE PACKING DEPARTMENT — TEA SIFTING DEPARTMENT —
PACKING TEA IN CHESTS — MECHANICAL TEA FIRING PLANT AT SHIZUOKA



PROMINENT TEA TRADERS

Mr. KAHEI OTANI, President of the Yokohama Chamber of Commerce and an Outstanding Figure in the Japanese Tea Trade -- Members of the Firm of Hellyer & Co., the Founder, Mr. FREDERICK HELLYER (seated), and (from left to right) Messrs. WALTER, ARTHUR T., and HAROLD J. HELLYER, Partners -- Mr. H. R. HUNT, Managing Partner, Hunt & Co.

in Japan, the whole presenting a vastly different spectacle from that to have been observed forty years ago when the trade was in its infancy and the methods used were crude and, to some extent, casual. To-day the modern tea factory, which

embraces in its operations, the different processes of grading, firing, preparing, and packing teas for export, is replete with mechanical appliances that not only have the virtue of being labour-saving, but also conduce to an output uniform and regular

in quantity and quality. In these respects Messrs. Hellyer & Co. have every advantage, backed by their lengthy experience, not only of the business of preparing tea for export, but of the requirements of the consumers of the product. The factory covers an area of 3,700 *tsubo*, and the buildings are of stone, plaster, and wood. One of our illustrations shows the tea-firing plant which, before it was brought to its present state of perfection, was the subject of years of experiment by practical tea men, in the effort to overcome the costly and slow process of hand-firing. Other photographs convey an idea of the busy scenes which are witnessed at the plant during the height of the tea season, when the firm employs from five to six hundred hands. Messrs. Hellyer & Co. deal with about 6,000,000 pounds of tea per annum, the product of their factory being exported in chests as well as in packets. The business is a partnership which comprises Messrs. Arthur T., Walter, and Harold J. Hellyer. The firm's head office is at No. 326 West Madison Street, Chicago.

HUNT & CO.

IN these days of the "mushroom" company, and when so much attention is being directed to the history of the commercial and industrial development of Japan, considerable interest attaches to the origin and



GROWERS BRINGING IN THEIR TEA TO THE MARKET AT SHIZUOKA



HUNT & COMPANY: A GLIMPSE OF THE MAIN FACTORY — AUTOMATIC BELT CONVEYOR AND WOMEN PACKING TEA —
THE PROCESS OF WEIGHING AND PACKING IN CHESTS — THE SHIPPING GODOWN

history of some of the old foreign houses, whose names are inseparably associated with the early and strenuous pioneer days. This is the case with Messrs. Hunt & Co., of Shizuoka, a concern that can lay claim, not only to being one of the first half-dozen pioneers of the tea trade, and to having held that position through all the vicissitudes of nearly fifty years, but to being one of the actual founders of the industry.

Mr. H. J. Hunt, father of the present active partners, but now retired, was in 1868 stationed at Nagasaki as the manager of the business of Ault & Co., a firm which traded in practically every line of merchandise, though the principal items of trade were arms, ships, and piece-goods, their customers being spread throughout the southern islands and the western parts of Japan. During the Satsuma Rebellion of 1871-2, the revolting clans made large purchases of ships and arms. They were unable to pay cash, and the produce of certain lands was offered in lieu thereof, the firm of Hunt & Co. being formed to operate the various transactions. Later it was discovered that a portion of the lands, from the produce of which the claims of the firm were to be satisfied, was under tea, in which trade



LOADING TEA LIGHTERS FOR TRANSFER TO LINERS

Mr. Hunt had fortunately had previous experience. Hunt & Co. developed the tea production, rough dried the leaf and shipped it to America, where it met with a ready

market. Such is the origin of the firm, and the inception of a business which has grown to enormous proportions in the intervening years.



BUYING TEA FROM THE GROWERS

Messrs. Hunt & Co. opened offices at Kobé in 1874, but in 1882 the head office was removed to Yokohama, and in 1910 a further transfer took place, the centre of operations being changed to Shizuoka, in the heart of the principal tea district. At Shizuoka the firm has one of the most complete tea factories to be found in the Orient. The offices and spacious godowns, compounds, etc., cover an area of 6,000 *tsubo*, or about 36,000 square feet, but even so the accommodation is no more than is necessary for the firm's operations during the heavy movement in the height of the tea season. Rough granite has been employed in the construction of the various buildings, which comprise all the usual departments of the modern tea factory. The plant and equipment is of the latest design. One interesting feature is the endless belt conveyor system, which, by the way, is the invention of the present Managing Partner, Mr. H. R. Hunt. By this installation the tea, when ready for packing, is transported down a line of waiting girls, facilitating the packing

operations considerably, the importance of which can be realised when it is stated that the firm exports an average of three million packets of tea annually.

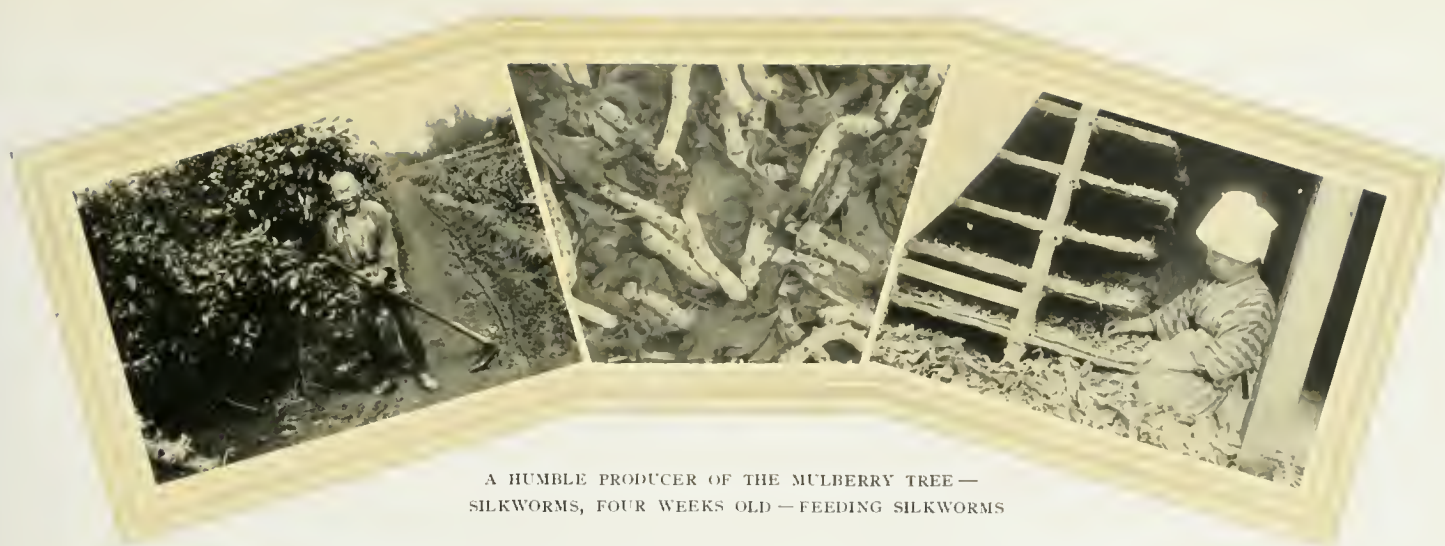
Practically every line of Japanese tea is handled by Messrs. Hunt & Co., but the largest share of the business is done in the medium grades for which there is the strongest demand. The tea is not dried by the firm, but that stage of its treatment is left to a number of smaller concerns who work exclusively for Messrs. Hunt & Co. Besides a large number of women and coolies, a staff of thirty-five clerks is employed at Shizuoka. At Kobé the firm's property extends over about 2,000 *tsubo*, and is located in the most valuable part of the foreign section, while at Yokohama, Messrs. Hunt & Co. own close on 4,000 *tsubo* in the best residential quarters of the Bluff. They are perhaps, the largest foreign landholders in Japan.

The accompanying illustrations of the firm's Shizuoka factory and appurtenances will give an idea of the unusual facilities

enjoyed by the firm, in the way of godowns and other structures, but as the photographs were taken at the end of the season, they do not adequately portray the busy scenes which are to be witnessed every day during the height of the activity in the tea industry of Japan.

The active partners in the firm of Hunt & Co. are Messrs. H. R. and E. G. Hunt. Mr. H. R. Hunt makes an annual business visit to the United States and Canada, where the principal connections of the firm are established, and where the house and its products enjoy a high reputation. The firm has its own branch offices at No. 135 Front Street, New York City; at Hearst Building, 326 West Madison St., Chicago, and at 3 Nicholas Street, Montreal. Both the Messrs. Hunt were educated at Oxford and take a keen interest in sport. Old Oxonians will remember Mr. H. R. Hunt as a football half-blue. Mr. E. G. Hunt is now at the front. Mr. H. R. Hunt took his turn earlier in the war, but has been invalided out.





A HUMBLE PRODUCER OF THE MULBERRY TREE —
SILKWORMS, FOUR WEEKS OLD — FEEDING SILKWORMS

XVII. THE SILK INDUSTRY OF JAPAN

By MR. AKIRA SHITO, Director of the Imperial Japanese Silk Conditioning House

HISTORY OF THE INDUSTRY — MODERN DEVELOPMENTS — DEVELOPMENT AND IMPROVEMENT — PRODUCTION — FILATURE OPERATIONS — THE EXPORT TRADE — JAPAN'S PLACE IN WORLD PRODUCTION — COMMERCIAL NOTICES

IT is impossible to overstate the importance of the silk industry to Japan. The country is peculiarly well adapted to silk production, sericulture being practised practically throughout the entire Empire, giving employment to close on 2,000,000 families, and constituting the most valuable of the primary resources of Japan. As a source of wealth silk is easily first among the industries. It may not be as vital to the existence of the Japanese as the production of rice, which is the "staff of life," but it would be hard to imagine the condition of Japan without the silk industry. And in a country like Japan sericulture has this great advantage, that it does not materially interfere with the energy and enterprise necessary for the ordinary pursuits of husbandry. Quite possibly if the silk industry were unknown, or at least were not developed to the extent it is, the volume of labour available for rice cultivation, or for other departments of agriculture, would be to some extent greater, and the production of food-stuffs would be enlarged, but even this is doubtful, because sericulture is only one of the natural concomitants of husbandry, interfering no more with the tillage of the soil and the harvesting of its produce, than does poultry breeding, or hog raising, interfere with farming in other countries.

In Japan silkworm-rearing and silk production, speaking generally, may best be described as the home industry of the farmer and his family. It is specialised as an industry in some cases, but as a rule it is merely

incidental to ordinary farming, the time devoted to it not interfering with the farmer's primary business of producing food, and the labour absorbed being that which can well and most profitably be spared. Sericulture provides an occupation for the entire family, just as in other countries dairying, chicken raising and other occupations associated with the farmer's home, provide an interest and a usefulness for those who do not actually engage in the rough work on the land. And there is this difference, that for the labour called for, silk is more profitable. Indeed it is questionable whether the Japanese farming families would be able to make agriculture pay at all did they not have such an industry as silk production to help them out. Where the business of silkworm-rearing, and the reeling of silk do call for labour that at other seasons of the year is available to the farmer as assistance on the land, the attention to the silk industry pays him well enough to enable him to engage outside labour, and then leave him a profit. These general statements, of course, need qualification in certain respects, particularly in the cases where silk as an industry comes first in the farmer's ideas of importance, but broadly, what has been said above holds true for the entire country.

To gain an idea of the extent to which sericulture is practised in Japan it may be said that official figures for 1916 gave the number of families engaged in the production of cocoons as 1,498,007. If we take the average Japanese family as five in number,

this means that 7,490,035 persons gave some portion of their time and attention to silkworm-rearing. In the same year there were 284,500 families employed in filatures, or in reeling operations in their own homes. The raising of silkworms and the production of the raw silk are only two, though they are the most important, phases of the silk industry. If we consider the silk weaving and spinning factories, the hundreds of godowns, the transportation, sorting, grading, testing, and general handling of the raw product, it would not be extravagant to say that the silk industry furnishes whole, or part-time, occupation to at least ten millions of the people of Japan. What the actual value of the industry is to Japan could only be estimated after an involved calculation. Official returns for 1916 gave the total production as 6,084,406 *kwan*, or approximately 50,400,000 pounds of silk valued at Yen 322,551,660. Other figures to be given later will more fully demonstrate the monetary importance of this great industry.

HISTORY OF THE INDUSTRY

As in the case of many other arts, crafts, and industries, the Japanese appear to have obtained their knowledge of sericulture originally from the Chinese. The antiquity of the industry is lost in the mists of time and legend. Whence the Chinese secured their knowledge of silk and its production is not known, but ancient records ascribe the introduction of sericulture to Hwang Ti about the year 2,697 B. C. In Japan the



INTERIOR OF THE COCOON

existence of silkworms as early as in Jindai (the Sacred Age) is recorded, but whether their rearing was practised as an occupation is not ascertainable. The first definite information regarding silk as an industry in Japan discloses the fact that it was introduced from China about 199 A. D., in the reign of the Emperor Chū-ai, when Koma-Ō, a descendant of a Chinese emperor, came to Japan and secured naturalisation, paying tribute for the privilege with precious things, which included silkworm eggs. There is

every reason to believe that from that time silk production was a regular thing in Japan, but not till the time of the Emperor Ō-jin (270 A. D.) was there a definite move to make it an industry. At that time a descendant of Koma-Ō, named Tsudzuki-no-kimi, brought to Japan from China a large number of silk farmers. These were distributed throughout Japan, and were ordered by the Emperor to engage in silkworm-rearing. This may be said to have been the real start of sericulture in Japan.



SORTING OUT THE COCOONS

The succeeding Emperor Nin-toku showed a warm interest in silk culture by sending the Empress to visit Nurinomi, a Korean lady who was engaged in rearing silkworms at Tsudzuki, in the Province of Yamashiro. From this time sericulture flourished under imperial patronage. The Emperor Yu-ryaku induced his consort to set an example to the people by rearing silkworms in person. He also gathered all the naturalised Chinese, who had been scattered throughout the country, and set them to work under the direction of Miki-no-kimi, a descendant of Koma-Ō, to undertake sericulture more extensively. An imperial decree was also issued encouraging the cultivation of the mulberry tree. Subsequent rulers keenly appreciated the value of the silk industry and history records many efforts made to foster its development. Thus a decree issued in the reign of the Empress Suiko, about thirteen hundred years ago, secured to the people freedom from public services during the seasons of farming and silkworm-rearing. At that time also fire warming was resorted to, to raise the temperature of the rearing rooms. In the reign of Emperor Kotoku (645 A. D.) a new system of taxes was inaugurated under which imposts were payable in silk fabrics, and this naturally increased the value of silk and led to its further production. The forty-second Emperor, Bum-bu, ordered that every family should cultivate mulberry trees according to the family class, namely, three hundred trees for the first class, two hundred for the second, and one hundred for the third class.

Up to this time silk production was confined to the central and southwestern parts of Japan, but in the reign of the Empress Gemmyō some of the rich families in the central part of Japan were transferred to the northeastern provinces and sericulture was introduced there. In the reign of the Emperor Daigo, some thousand years ago, the districts producing silks of a superior quality were the following prefectures: Miye, Aichi, Shiga, Gifu, Hyōgo, Okayama, Hiroshima, Wakayama, and Tokushima. Medium quality silks were produced in the prefectures of Fukui, Ishikawa, Niigata, Kyoto, Tottori, Shimane, Yamaguchi, Kagawa, Ehime, Kōchi, Fukuoka, Nagasaki, Saga, Kumamoto, Ōita, Miyazaki, and the southern part of Shizuoka. Inferior silks came from the northern part of Shizuoka, Yamanashi, Kanagawa, Tokyo, Chiba, Ibaraki, Nagano, Gumma, and Tochigi. At that time the industry flourished more in the central and southwestern districts, the distribution of sericulture being quite different from what it is to-day when the northeastern districts are such prominent silk producers. Up till the turbulent era of Gem-pei, when

the rival families of Minamoto and Taira plunged the country in war, the silk industry flourished, but the wars, and the introduction of cotton gave it a serious setback from which it did not recover until the sixteenth century when the establishment of the Tokugawa *régime* brought peace. Then sericulture, along with other industries, received due encouragement, but the production was not what it had been in former periods. There were two reasons for this. First, frugality in the mode of living and dress was the order of the day, and naturally the wearing of silk was discountenanced. Secondly, the common people were not allowed to wear silk, that material being reserved for the *samurai*, or military class.

Nevertheless in this era of the Tokugawa shoguns, the industry made some advancement, the development of silk-producing areas being mainly toward the north. The terrible famine of 1785 devastated the whole country, and a decree was again passed prohibiting the common people from wearing silk, with consequent unfavourable influences upon the industry.

From this history it may be observed that the Japanese have always been sensible of the importance of sericulture, and it is doubtful if any industry ever had so much encouragement as a national occupation, or was more studiously fostered by the successive emperors and governments, except in times of internal strife.

MODERN DEVELOPMENTS

JAPANESE silks were amongst the most valued articles of trade in the eyes of foreigners, and with the opening of Yokohama to overseas commerce in 1857, silk production was one of the first of the national activities to feel the influence of contact with the outer world. From the inception of the Meiji era, or even earlier, the Japanese Government and the people generally, gave closer attention to sericulture which promised to become such a source of wealth from foreign countries.

Perhaps the first real stimulus to the industry was the demand which arose over fifty years ago for Japanese silkworm eggs, to replace the stock which had been ravaged in Italy and France by the disease known as *pebrine*. The annual export of egg cards from Japan at one time reached the enormous figure of 1,000,000, and the production of eggs for foreign silk-growing countries became in itself an important industry. The export of egg cards began to fall off when the late M. Pasteur introduced his system of egg selection for the benefit of the European silk farmers. In 1886 only 4,000 cards were exported from Japan. The number dropped to 800 in 1895 and at the present time the export has practically ceased.



COCOONS READY FOR THE MARKET

Throughout the history of Japanese silk production, up to the opening of the country to foreign trade, silk-reeling, or the unwinding of the silk from the cocoons, had been performed by primitive methods, the simple hand wheels being employed. It was not long, however, before foreign methods were introduced, and the industry gradually became systematised along modern lines. In 1869 the Ono-gumi established a filature of one hundred reellers at Tsukiji, Tokyo, the French model being adopted. This factory was

removed three years later to Nihonmatsu, Fukushima Prefecture, where it remains to this day under the name of the Soshokwan. In 1870 the Government started a factory at Tomioka in Gumma Prefecture, and a Frenchman, Paul Bruner, was employed as an instructor. This was the inception of practical and modern governmental supervision of the industry without which it is questionable whether silk production would have reached the high standard to which it has attained. Later on we may come to the



THE SILK-COCOON MERCHANT



THE PROCESS OF IMMERSING THE COCOON IN BOILING WATER PRIOR TO UNWINDING THE SILK, AS CARRIED ON IN THE HOME AND IN THE FACTORY

discussion of the question of Government control and regulation designed to maintain and improve the entire industry as one of first rate national importance. The earliest factories were soon followed by others, and presently filatures were established all over Japan. The number in operation to-day is approximately 4,200, which number, however, includes small household work-rooms fitted up as filatures, and employing only the members of the family. These home "factories," for the most part, have under ten basins. Among the regular factories, however, the smallest have from 50 to 70 basins, and the largest range from 800 to 1,000 basins in the one building. In France and Italy the largest filatures have from 500 to 600 basins, so that in this respect many of the Japanese filatures, or raw silk factories, are the largest in the world, though some experts do not consider it so advantageous, from the point of view of economical and efficient working, for a filature to have more than 500 basins in one building. In all operations of reeling and re-reeling silk there were in use in 1916, 615,675 basins.

DEVELOPMENT AND IMPROVEMENT

We have dealt with the ancient, and one phase of the modern, history of the silk industry of Japan, and have indicated the great extent of its growth. It is now necessary to speak of the means adopted to improve the quality of the product, and develop a more extensive production, and generally to systematise the industry in all respects. This work has been almost entirely carried out under Government supervision, with the assistance of foreign experts originally, and supported by various associations of sericulturists.

The Imperial Japanese Government, early in the Meiji era, exerted every effort to foster sericulture, and readily adopted foreign ideas for the betterment of the industry. We have seen that a State factory was started in 1870. Coincidentally the supervision of sericulture was placed in the hands of the Department of Agriculture and Commerce. Foreign experts were engaged to raise the standard of production, and modern machinery and methods were introduced. Needless to say the silk produced forty or fifty

years ago under the old methods was much inferior in quality to what it is to-day. A greater part of it was reeled from yellow cocoons. This gradually gave place to the white silk which is so much in demand to-day. The silkworms raised were then of the univoltine race, hatching in spring. Some attempts had been made to rear bivoltine worms for a summer crop, but it was not till fifty years ago that it was found by chance that the eggs of the univoltine race, preserved in a cave, would retard their hatching until autumn. From that time the practice of keeping the egg cards in cool storage, which is generally found in caves, or special places dug in the hillsides, has been general, and Japan now raises a spring, summer, and autumn crop of cocoons.

It would be too lengthy a process to describe all the steps that have been taken to bring the industry to the remarkable state of efficiency and national value which it discloses to-day, but we may touch on the leading features of the State policy. Specialists have regularly been sent abroad by the Government to study conditions prevailing



MANUFACTURING SILK THREAD FROM SILK WOOL

in the industries in France, Italy and elsewhere, and to investigate the market requirements in America. In 1874 the Sericultural Experiment Station was opened by the Department of Home Affairs at Naito, Shinjuku, Tokyo. This was abolished in 1879, but the terrible ravages of disease in Italy and France showed that scientific control of sericulture was absolutely essential in Japan, and the Government established a station for the investigation of silkworm diseases, at Kojimachi-ku, Tokyo, in 1884. Research revealed the presence of *pébrine* in Japanese silkworms and in 1886 official regulations for the examination of eggs were promulgated. Students were trained in the examination of eggs and moths, and by this means a better knowledge of the methods of preventing disease was spread throughout the industry. Government supervision was coördinated and centred in the Sericultural Institute in 1896, and three years later another institute was established at Kyoto, where experiments were conducted, and instruction regularly given. The question of reeling became as important as that of the proper scientific methods of raising silkworms and preventing disease, and accordingly a filature department was added to the Sericultural Institute at Tokyo in 1902 to conduct experiments and give instruction to those in the industry.

Through the work of these state institutions, seconded by the many prefectural schools and supervising bodies, as well as different associations of a semi-public nature, the entire industry of raising silkworms, producing cocoons, and working off the raw silk,

was raised to a high degree of perfection, being standardised in every respect. There only remained the need for conditioning and regulating silk for the open market and for export. This work was taken in hand by the Government which in 1895 established two conditioning houses, one at Yokohama and the other at Kobé. The latter was closed in 1897, as there did not appear to be much need for it, Yokohama having become the silk-marketing centre of the Empire. The operations of the silk-conditioning house there have increased enormously and to-day

the value and importance of the Yokohama Silk Condition House can hardly be overestimated, its operations being indispensable to the industry. Besides these, a few years ago the Government established the Sericultural Experimental Station at Nakano, Tokyo, and it has seven branches located according to climatical conditions.

PRODUCTION

As mulberry trees can be cultivated almost anywhere in the Japanese Empire, between Hokkaido and Formosa, a geographical range of twenty-three degrees of latitude, it may be said that the sericultural industry is general to Japan with the exception of the Saghalien territory. There is hardly a district in which silkworms are not reared on a large scale, but the most attention is given to the industry in the prefectures of Nagano, Fukushima, Gumma, Aichi, Saitama, Yamanashi, Gifu, Shiga, Yamagata, and Tokyo. Practically all the mulberry trees, to the number of several hundred different varieties, are indigenous to Japan, though one or two varieties were imported from China. From the point of view of zoölogy the silkworms are only one species of the insect, albeit there are many varieties obtained by natural and artificial selection and breeding. In Japan the worms are classified as univoltines (or annuals), bivoltines, and polyvoltines. The annuals produce one brood, the bivoltines two broods, and the polyvoltines three or more broods in the year. The annuals are conceded by silk growers to be the most satisfactory and profitable, because they produce the greatest amount of silk for the quantity of mulberry



THE WEAVING LOOM

leaves fed to them. The bivoltines produce less silk, and the least productive are the polyvoltines. The latter are the easiest to rear, being vigorous and ready eaters. In inverse ratio the annuals are the most difficult to rear and feed. Varieties of worms are often also known by the class of cocoon they produce, as white, yellow, and green, but the white cocoon is the chief variety. Lastly the Japanese silkworms are classified as spring, summer, and autumn breeds.

ence between this number and the number given in our table obviously representing the farmers who raise summer and autumn cocoons only. The total value of the cocoons raised for 1916 reached the enormous figure of Yen 273,058,254. A study of the table above also indicates a higher degree of skill in sericulture during the last few years of the period under review, for it will be seen that though the number of families engaged did not increase very materially, a greater

weaving factories, the great bulk of it is exported. Formerly, raisers of raw silk used to sell off their products at Yokohama, whence it passed into the hands of foreign dealers for export. In 1875 the first attempt at direct export was made by Chotaro Hoshino, of Gumma Prefecture, who made a shipment through Messrs. Kindon & Co., of Yokohama, but the attempt to open direct trade with importers and manufacturers in other countries, was not

PRODUCTION OF COCOONS, 1907 TO 1916

| YEAR | NO. OF FAMILIES | NO. OF EGG CARDS | COCOONS (KOKU)* | DOPPIONI (KOKU)* | PIERCED COCOONS | WASTE COCOONS | TOTAL (KOKU)* | PERCENTAGES | | |
|------|-----------------|------------------|-----------------|------------------|-----------------|---------------|---------------|-------------|--------|--------|
| | | | | | | | | SPRING | SUMMER | AUTUMN |
| 1907 | 1,421,030 | 4,433,157 | 2,789,815 | 359,659 | 58,646 | 248,847 | 3,456,967 | 65 | 14 | 21 |
| 1908 | 1,436,805 | 4,554,922 | 2,860,031 | 364,968 | 56,221 | 248,948 | 3,530,168 | 62 | 14 | 24 |
| 1909 | 1,450,248 | 4,598,331 | 2,928,437 | 383,973 | 57,416 | 260,041 | 3,629,867 | 63 | 13 | 24 |
| 1910 | 1,462,976 | 4,839,128 | 3,137,104 | 414,325 | 69,563 | 279,970 | 3,900,962 | 62 | 13 | 25 |
| 1911 | 1,507,550 | 5,058,810 | 3,431,060 | 446,708 | 65,059 | 292,463 | 4,235,290 | 61 | 12 | 27 |
| 1912 | 1,500,409 | 5,135,568 | 3,610,180 | 471,544 | 67,677 | 302,906 | 4,452,397 | 57 | 12 | 31 |
| 1913 | 1,500,280 | 5,159,421 | 3,759,398 | 467,997 | 63,672 | 300,481 | 4,591,548 | 57 | 12 | 31 |
| 1914 | 1,459,016 | 5,094,856 | 3,607,989 | 449,480 | 61,132 | 293,638 | 4,412,239 | 59 | 14 | 27 |
| 1915 | 1,433,045 | 5,332,323 | 3,845,567 | 478,767 | ..... | 323,094 | 4,647,428 | 56 | 13 | 31 |
| 1916 | 1,498,007 | 5,757,414 | 4,775,085 | 576,104 | ..... | 357,274 | 5,708,463 | 54 | 11 | 35 |

* The yield of cocoons, it will be observed, is given in *koku*, a measure of capacity which is a little under five bushels.

Though this classification is popularly used it does not mean that the worms are different varieties, but only shows the different seasons of their feeding. The spring breed is allowed to hatch after the budding of the mulberry trees, the summer breed, soon after the "mounting" of the spring worms, and the autumn breed from about the beginning of August till the middle of September.

Japanese statistics disclose the extent of the sericultural industry by giving the areas under mulberry plantation, the number of families engaged in silkworm-raising, the quantity of egg cards obtained, the yield of cocoons for the three seasons, and the production of raw silk. For instance, we learn that the area of mulberry trees in 1916 was 465,865 *cho*, or about 1,164,660 acres, or close on 20 per cent of the total farm lands, and the area is increasing every year. A comparative idea of the extent of the industry may be gained from the accompanying table.

In the foregoing table the number of families engaged, represents those who raise spring cocoons. Many of these same families raise summer and autumn cocoons as well, while other families devote their attention either to summer or autumn cocoons alone, so to gain an idea of the total number of families engaged it is necessary to take the figures for 1916, compiled by the Department of Agriculture and Commerce, applying to the production of all cocoons, irrespective of season. In this return the number of families is stated to be 1,765,937, the differ-

number of egg cards were hatched, and the production steadily increased, with a regular diminution of pierced, or spoiled, cocoons. The steady development of autumn breeding is also a conspicuous feature of the return.

As a matter of fact this and other statistical tables demonstrate the results of the careful attention which the Government has given to the great silk industry, the farmers handling all phases of silkworm-rearing and silk production with a degree of skill that has eliminated much of the risk and loss from what was once a precarious business, subject to many baneful influences.

FILATURE OPERATIONS

As a general rule the Japanese farmers stop with the raising and sale of their cocoons. There are many thousands of homes in which reeling operations take place, but with the establishment of regular factories this business is left to them. The regular filatures are equipped in a most scientific manner, and they handle the bulk of the cocoons. Re-reeling is largely left to the home workers, however, as may be seen from the first table on the following page.

There is some extent of export and import of cocoons, though the latter exceeds the former. The second table on the following page shows the movement in this trade.

THE EXPORT TRADE

WHILE a considerable quantity of Japanese raw silk is consumed by local spinning and

on that occasion, successful. However, in the following year Mr. Hoshino, associated with Mr. Momotaro Sato, of Chiba Prefecture, succeeded in executing the sale of 400 *kin* at Yen 650 per *kin*, to a merchant in New Jersey. This was the first instance of direct export recorded.

It may be mentioned here, in this connection, that for export purposes, silk weights are given in *kin*, each equal to approximately $1\frac{1}{3}$ pounds avoirdupois. The establishment of the Doshin Kwaisha at Yokohama, in 1879, opened the way for regular direct export, and the inauguration of the Yokohama Specie Bank the following year gave great facilities for the handling of the foreign trade.

The raw silk, as it comes from the homes which engage in reeling operations, or from the larger filatures, is practically all consigned to Yokohama, where it is disposed of in the Doshin Kwaisha, or Silk Exchange, buyers purchasing either direct or through silk brokers. Thence the silk passes into the godowns of the exporting firms, and eventually is shipped, mainly to the United States. In the operations of purchase and handling for shipment, the raw silk is tested, classified, and in other ways "conditioned," this work being generally carried out by the Imperial Silk Conditioning House at Yokohama. Most of the buying is done subject to certificates of condition, obtainable on tests, from the Silk Conditioning House. The extent to which this Government institution controls

FILATURE, RE-REEL, AND OTHER OPERATIONS, 1916

| OPERATION | FILATURES | | | | | TOTALS | | | |
|-------------------------|-----------------|----------------|----------------|-----------------|--------------------|---------------|-------------------|-------------|----------------|
| | Under 10 Basins | Over 10 Basins | Over 50 Basins | Over 100 Basins | No. of Filatures | No. of Basins | Production (Kwan) | Value (Yen) | Value per Kwan |
| Raw Silk | 1,588 | 1,200 | 785 | 621 | 4,194 | 224,569 | 3,538,918 | 261,890,860 | 74 |
| Waste Silk: | | | | | | | | | |
| Noshi..... | | | | | | | 60,877 | 721,397 | 12 |
| Kibiso..... | | | | | | | 687,916 | 5,315,921 | 8 |
| Others..... | | | | | | | 450,620 | 775,314 | 2 |
| Re-Reel | 238,383 | 891 | 26 | 4 | 239,304 (families) | 328,384 | 636,454 | 40,166,562 | 63 |
| Waste Silk: | | | | | | | | | |
| Noshi..... | | | | | | | 68,740 | 544,476 | 8 |
| Kibiso..... | | | | | | | 105,164 | 638,489 | 6 |
| Others..... | | | | | | | 43,412 | 114,752 | 3 |
| Doppioni | 40,670 | 225 | 71 | 36 | 41,002 (families) | 62,722 | 344,478 | 11,775,537 | 34 |
| Waste Silk: | | | | | | | | | |
| Noshi..... | | | | | | | 44,759 | 223,808 | 5 |
| Kibiso..... | | | | | | | 41,425 | 285,761 | 7 |
| Others..... | | | | | | | 61,643 | 98,783 | 2 |
| Floss Silk | | | | | | | 119,525 | 2,645,313 | 22 |
| Yamamai and Tussah..... | | | | | | | 308 | 25,073 | .. |
| Totals..... | | | | | | 615,675 | 6,204,239 | 323,222,046 | .. |

EXPORTS AND IMPORTS OF COCOONS, 1907 TO 1916

| YEAR | EXPORTS | | IMPORTS | |
|------|----------------|-------------|----------------|-------------|
| | QUANTITY (Kin) | VALUE (Yen) | QUANTITY (Kin) | VALUE (Yen) |
| 1907 | 22,005 | 11,057 | 1,031,278 | 1,090,272 |
| 1908 | 16,597 | 11,150 | 581,678 | 474,417 |
| 1909 | 5,450 | 3,735 | 1,112,886 | 859,255 |
| 1910 | 304,531 | 524,151 | 1,791,309 | 1,299,776 |
| 1911 | 408,709 | 679,896 | 1,353,436 | 919,383 |
| 1912 | 226,446 | 369,737 | 1,879,495 | 1,152,551 |
| 1913 | 377,776 | 662,716 | 1,609,685 | 952,765 |
| 1914 | 266,212 | 327,557 | 901,198 | 683,486 |
| 1915 | 449,326 | 664,483 | 1,774,968 | 1,845,100 |
| 1916 | 513,225 | 823,855 | 1,349,506 | 1,370,837 |

the sale and export of silk may be gathered from the fact that in 1916, 195,715 tests were made, the quantity of raw silk handled for conditioning being about 8,848,854 pounds. The number of tests conducted in 1916 was more than twice the number in 1907.

In the following table will be found figures disclosing the quantity and value of raw silk exported from Japan for ten years. The table deals only with the two main items, raw silk and waste silk. There are other qualities or varieties of silk exported, which would swell the grand total, but these figures are a sufficient indication of the great expansion which has taken place in the trade.

PRODUCTION AND EXPORTS OF SILK, 1907 TO 1916*

| Year | RAW SILK | | | | WASTE SILK | | |
|------|------------|------------|-----------------------|------------------|------------|-----------|------------------|
| | Production | Exports | Balance of Production | Value of Exports | Production | Exports | Value of Exports |
| | Kin | Kin | Kin | Yen | Kin | Kin | Yen |
| 1907 | 15,331,088 | 9,354,361 | 5,976,727 | 116,888,627 | 4,843,625 | 5,650,123 | 6,243,305 |
| 1908 | 16,946,694 | 11,521,795 | 5,424,899 | 108,609,052 | 5,009,338 | 7,891,257 | 7,872,465 |
| 1909 | 18,139,100 | 13,469,406 | 4,669,694 | 124,243,239 | 5,459,100 | 6,733,023 | 6,928,607 |
| 1910 | 19,840,469 | 14,846,175 | 4,994,294 | 130,832,940 | 6,083,344 | 7,506,054 | 8,417,344 |
| 1911 | 21,341,500 | 14,456,047 | 6,885,453 | 128,875,094 | 6,501,781 | 6,975,191 | 7,785,646 |
| 1912 | 22,780,969 | 17,102,574 | 5,678,395 | 150,321,198 | 6,773,038 | 9,745,746 | 10,543,264 |
| 1913 | 23,381,406 | 20,228,616 | 3,152,790 | 188,916,892 | 6,878,206 | 8,034,014 | 10,471,008 |
| 1914 | 23,474,288 | 17,148,753 | 6,325,535 | 161,797,411 | 6,955,500 | 3,816,610 | 4,672,560 |
| 1915 | 25,286,506 | 17,814,174 | 7,472,332 | 152,030,518 | 8,840,344 | 5,818,849 | 5,951,526 |
| 1916 | 28,249,063 | 21,741,976 | 6,507,087 | 267,036,616 | 9,778,475 | 8,366,238 | 10,480,462 |

* In the table the export of waste silk considerably exceeds the production in the years anterior to 1913. This discrepancy is officially explained to be due to the fact that production is ascertained from figures of prefectural authorities, and export from figures of the Department of Finance, the presumption being that the prefectural reports are not conclusive as to actual production.



S. I. HEGNER & CO., YOKOHAMA: THE COMPOUND, SHOWING OFFICES AND GODOWNS — SCENE IN THE SILK PACKING GODOWN — THE SILK DEPARTMENT — THE WASTE SILK DEPARTMENT

JAPAN'S PLACE IN WORLD PRODUCTION

To conclude this necessarily quick survey of the silk industry of Japan it is proper to give some idea of the position which Japan occupies as a producer of silk, in relation to the rest of the silk-growing countries of the world. She is easily first, her production being three times greater than that of the whole of the European silk countries, and twice that of her greatest rival, China. Statistics of silk production are classified geographically, the figures for each country being grouped as "Western Europe," "Eastern Europe and Central Asia," and "Eastern Asia." Western Europe produced in 1916, 4,072,000 kilogrammes of raw silk, Eastern Europe and Central Asia produced 1,040,000 kilos, and Eastern Asia, 20,583,000 kilos, or a grand total for the world of 25,695,000 kilos, equal to about 56,529,000 pounds. Japan alone produced 13,350,000 kilos, or more than one-half of the total world output of raw silk.

The United States is the largest importer of raw silk in the world, France, Italy and other silk producing and manufacturing countries depending almost entirely on their own supplies, though they also export. Some interesting figures for the United States show the following for three years past:

Total imports of all silks, 1914, 25,000,000 pounds of which 74 per cent came from Japan, 17 per cent from China, 7 per cent from Italy, and 3 per cent from France.

Total imports of all silks, 1915, 30,000,000 pounds, of which 64 per cent came from Japan, 24 per cent from China, 10 per cent from Italy, and 3 per cent from France.

Total imports of all silks, 1916, 32,000,000 pounds, of which 75 per cent came from Japan, 19 per cent from China, 4.7 per cent from Italy, and 2 per cent from France.

Japan's trade with the United States for 1917 was estimated by the Silk Association of America to be from 220,000 to 230,000 bales of raw silk, an increase of from 18 to 20 per cent above the imports for the previous year.

Truly the silk industry of Japan, and the maintenance of her great market in the United States, are two things of first rate economic and political importance.

SIBER, HEGNER & CO.

This firm which is incorporated in Switzerland, is the largest foreign firm of raw silk exporters in Japan, and for many years, until the huge Japanese organisations came on the scene, it was the first concern in the trade, at one time handling one-fourth of the entire export. The business was founded in 1866 by Mr. H. Siber and the late Mr. Brennwald, who were among the first foreign merchants in Yokohama. Mr. Siber had been engaged in the silk business in Switzerland and concentrated on that branch of Japanese industry upon his arrival in Yokohama. Mr. Brennwald died about 1899 and as the Swiss company laws dictate that the name of a deceased partner shall not be used in the trade designation, the firm then became known as Siber, Wolff & Co., and subsequently as Siber, Hegner & Co.

From the records of the firm it is possible to obtain a very good idea of the remarkable expansion of the raw silk industry of Japan,

in the development of which Messrs. Siber, Hegner & Co. have played an important part. It is not so many years ago that the entire export of silk from Japan was only between 40,000 and 50,000 bales, of which 20 per cent was handled by the firm. This year, which will constitute the firm's record, they will have handled over 21,405 bales, out of a total of 239,800 bales. The Japanese Government has not been unmindful of the work done by the firm for the development of the industry. In 1903 they were awarded a gold medal and diploma, the latter setting out that the firm had been established in Yokohama at the time of the opening of the port, and further stating that the Japanese Government had been advised by them to encourage the improvement of the quality of silk produced, with the very best results to the great national industry.

Messrs. Siber, Hegner & Co. also do a very large business in waste and carded waste silk. As general importers and exporters they handle principally the lines stated above as well as general produce, and they import textiles, iron, machinery, chemicals, and dyestuffs, for the latter of which they have their own laboratory under the direction of a fully qualified analytical chemist, who is constantly engaged in research work. Siber, Hegner, & Co. also do a large import business in electrical metres and watches. They have branches at Tokyo, Kōbe, Seoul, and Zurich. Agencies are maintained at London, New York, Milan, and Lyons.

The offices and godowns of Messrs. Siber, Hegner & Co. are among the most extensive of foreign properties in Yokohama. The land is held under perpetual lease, and has an area of 1,000 *tsubo*. On this area are erected the main offices, twelve godowns and other buildings, all of the most substantial construction, brick and stone being employed. The staff comprises ten Europeans, and for regular work about 60 hands are employed at Yokohama and another 35 at the Kōbe branch. But in the height of the silk season the firm engages from four to five hundred sorting women and from forty to sixty coolies. A pleasing feature about the work people of this old established firm is that very many of them have been with the concern for practically all their lives. Messrs. Siber, Hegner & Co. have many hands who have served their interests for thirty-five years, and some of the old pensioners have been with the house well over forty-five years. Of the partners in the firm, Mr. Siber is at Milan and Mr. Hegner in Zurich. The local managing partners are Messrs. F. Ehrismann and Ed. Bosshart, each of whom has had about thirty years' experience of the business of silk production and exportation.



TYPE OF SMALL SILK RETWISTING MILL



L. BARMONT & CIE: THE SILK-TESTING ROOM — THE OFFICE AND GODOWNS, YOKOHAMA — INTERIOR OF SILK GODOWN

L. BARMONT & CIE

THE firm of L. Barmont & Cie, which, as the name implies, is a French business concern, was originally established by the late Mr. L. Mottet in 1895. In 1907 Mr. Mottet was joined by Mr. L. Barmont as partner, and the firm became known as L. Mottet & Barmont. Both Messrs. Mottet and Barmont had had a lengthy experience of the silk trade, both in France and China, and when they turned their attention to the rapidly developing industry in Japan, they quickly established a substantial business, and through the special knowledge of the Lyons market which they possessed they were able to develop their interests, and at the same time materially promote the silk industry of Japan. On the death of Mr. Mottet, Mr. Barmont became the sole proprietor of the business.

At one time the firm of Barmont & Cie handled some general lines of imports and exports, but their trade in raw silk increased to such an extent that finally they concentrated their efforts entirely on this industry, and are to-day among the largest dealers of the foreign firms in silk, shipping annually

about 10,000 bales to the United States and France, approximately 75 per cent of the export going to the former country. While all silk exported from Japan passes through the Imperial Japanese Silk Conditioning House, and is there tested and classified, Messrs. Barmont & Cie have their own testing machines by means of which their exports are subjected to a double test, the private one, and the official test. The advantage of this system is obvious. Messrs Barmont & Cie know from their own investigations in their testing room whether the silk they are exporting is well up to standard, and the official test which follows, ensures customers of the most careful inspection, and is a double guarantee of the quality which the firm handles. Furthermore Messrs. Barmont & Cie have in their service as inspector, Mr. Reiffinger, who has been in the silk business for practically forty years, of which thirty have been spent in Japan. Mr. Reiffinger is recognised generally to be one of the best judges of silk in the Japanese market. Amongst the raw silk handled by Barmont & Cie are the Gunze filature, the Sano filature, the Matsushima

filature, and the Higoseishi filature. These names are particularly well known to the trade for the extra fine quality of their products. For some time Barmont & Cie took the whole of the output of the famous Gunze filature. They are now handling the entire production of the Sano filature, which for years has been considered as one of the best sources of supply in Japan. The Matsushima filature is under the control of Mr. Sano. Barmont & Cie have also given a good deal of attention to the production of silk hosiery in Japan, and until a few months ago they did a large business in raw silk with Moscow, as well as shipping largely to the United States and France.

Barmont & Cie have excellent connections abroad. They operate on joint account with Messrs. F. Desgeorge et Cie, who are one of the oldest and most respected firms operating as importers on the Lyons market. In New York the firm is represented by Messrs. Aldridge & MacFarlane, Incorporated, and Messrs. H. L. Walter & Co. Barmont & Cie have a large three-story godown, complete with all appliances for handling raw silk,

adjacent to their offices, which are at No. 183 Yamashita-cho, Yokohama.

A. P. VILLA & BROS., OF JAPAN,
INCORPORATED

A VISIT to the silk godowns of Messrs. A. P. Villa & Bros. furnishes one with an impression of the great care taken in the handling of raw silk for export, and conveys an idea of the extremely delicate nature of the business in which this firm specialises. Messrs. Villa & Bros., of Japan, Inc., are among the largest foreign firms dealing in raw silk. They export to France, Italy, and Switzerland, but the main outlet for the goods they handle is the New York market, where they have special warehouses and plant for working up the raw silk into various plies, suited to the requirements of the American manufacturers. Among their regular customers in the United States are some of the greatest silk piece goods and hosiery manufacturers, and it necessarily follows that the most careful attention is called for in Japan to ensure that the high

reputation which the firm has obtained for the uniform excellence of its shipments, is in no way injured. This means, as stated above, very careful handling of the raw product in the Yokohama godowns. Messrs. Villa & Bros. have spared no expense in their establishment. The raw silk comes, in the first place, from the very best filatures, but even so, it is carefully examined and tested before it is purchased for shipment abroad. The firm has extensive godowns for the storage and inspection and packing of the silk, but prior to its reaching those stages it has to pass the most rigid tests for colour, fineness, elasticity, and strength. Messrs. Villa & Bros. have their own testing rooms, replete with the most approved modern appliances, which are attended by skilled work people whose business it is to record the results of all tests. These results are then examined by the buying experts, and the silk offered by the filatures is accepted, or rejected, as the case may be.

The firm also has its own conditioning room, for the proper regulation of the silk

to be shipped under its name and guarantee, and it is obvious from the care taken and the degree of skill exercised in the examination, classification, and testing of the silk, that the very highest standards of quality are maintained. About 7,000 bales of silk are shipped annually by Messrs. Villa & Bros. The silk goes direct to the firm's own warehouses in New York, or to the branches at Turin, Milan, and Lyons. This quantity refers, of course, to the Yokohama office. There are also buying offices and godowns at Shanghai and Canton, which deal in Chinese silk. The Yokohama branch, which is under the management of Mr. T. M. G. da Cruz, was opened on June 26, 1912, and is located very centrally to the Imperial Silk Conditioning House, and the business quarter generally, at No. 206 Yamashitacho. Mr. da Cruz is an expert silk man of over seventeen years' experience. The Canton branch was opened in September, 1912, under the management of Mr. Gustave Hoppeler. The Chinese *hong* name for the house is "Tak Lee." The Shanghai branch



A. VILLA & BROS. OF JAPAN: INTERIOR VIEW OF THE CANTON OFFICES—THE OFFICES AND GODOWNS AT YOKOHAMA—
THE FIRM'S HANDSOME PREMISES AT SHANGHAI



C. EYMARD & CIE: THE HEAD OFFICE—THE COMPOUND, FILLED WITH BALES OF WASTE SILK—WOMEN AT WORK ON WASTE SILK!



SILK MERCHANTS

(Upper Row, Left to Right) M. ZAHN, Manager, Nabholz & Co.—L. BARMONT, of L. Barmont & Cie—K. ONO, a Prominent Silk Merchant of Yokohama, and Chairman of Memorial Hall Committee. (Lower Row) CHARLES EYMARD, of C. Eymard & Cie—CLAUDE EYMARD, of C. Eymard & Cie—CÈSAR EYMARD, of C. Eymard & Cie

was established in May, 1913, and is under the management of Mr. Eric Ericson, the house being known to the Chinese as "Ching Chong."

The Messrs. Villa Brothers are Italian silk merchants, whose interests are very extensive. They have been in the business for a lifetime, and undoubtedly have established a world-wide reputation in the silk trade.

C. EYMARD & CIE

THERE are several branches of the great staple industry of Japan—silk. The most important, of course, is the export of the raw product, which is shipped in vast quantities to Europe and America. Silk weaving in Japan is a secondary industry, which, however, is making vast strides. Then comes the handling of the waste silk, an industry which calls for thousands of work people, mostly women. In this business Messrs.

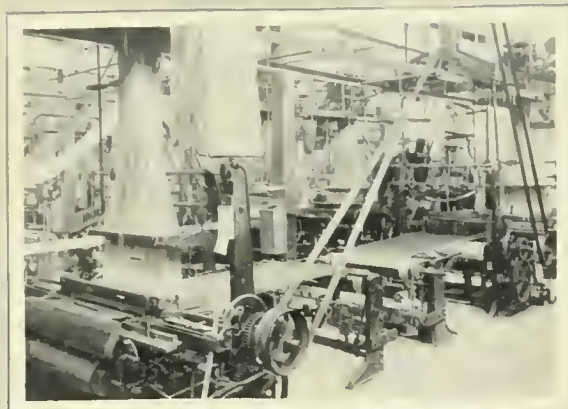
C. Eymard & Cie, the well known French firm of Yokohama, do perhaps the largest business in Japan. The interests of this firm were established at Yokohama in 1885 by Mr. Claude Eymard, and they have steadily expanded with the development of the silk industry. Messrs. C. Eymard & Cie export entirely to France, where the waste silk, carefully examined and classified at Yokohama, is utilised for many purposes. The firm handles approximately about 2,000,000 kilos of waste silk per annum, and the value of the material varies, according to the market, between Yen 2,000,000 and Yen 4,000,000. Godowns utilised by the firm are of solid brick construction, and cover an area of 1,200 *tsubo*. In the height of the season the compound is a scene of great activity, and one of our illustrations shows the scores of bales of waste silk, laid out and opened for inspection. At such times 500 or more hands are employed, sorting, grading,

and picking over the material as it comes from the filatures. The silk is re-baled under an hydraulic press, gas power being utilised for the plant.

The partners of the firm are Messrs. Claude, Charles, and Cèsar Eymard. A capital of Yen 100,000 is employed in the business, the offices of which are located at No. 253, Yamashita-cho, Yokohama.

KYOTO TEXTILE CO., LIMITED

IN the history of this company is to be found the story of the effort on the part of the textile industries of Japan to produce the higher class of goods, such as silk fabrics, brocades, etc., as manufactured in Europe by modern machinery, as against the old-fashioned hand weaving processes. The Kyoto Orimono Kabushiki Kaisha, or Kyoto Textile Co., Ltd., was originally established in May, 1887, with a capital of Yen 450,000, its objective being to develop the industry



KYOTO SILK WEAVING CO., LTD.: INTERIOR OF THE MECHANICAL WEAVING DEPARTMENT—GENERAL VIEW OF THE FACTORY—
THE SILK-FINISHING PLANT—THE DYEING DEPARTMENT

of weaving and dyeing, by mechanical processes, utilising machinery imported from Europe, and following the most approved modern theory and practice. It was also designed to become a model organisation, to improve and build up the entire textile industries of Japan. At this time there was in operation the "Oridono," or "weaving mansion," conducted under the control of the Kyoto Prefecture, as a semi-official institution. The business of this concern was transferred to the Kyoto Textile Co., Ltd.

What was, in effect, an entirely new industry for Japan, was thus entered upon. The company despatched three specialists to Europe to study the business of dyeing and weaving, and at the same time three French experts were engaged to supervise the work in the factories. Great difficulties were encountered in the first years. Among the obstacles to advancement was the reluctance of dyers and weavers to depart from old methods, and their general inability to acquire the knowledge of the use of the new machinery. However, the company's efforts were not relaxed, and steady progress was

made. The construction of the new Imperial Palace gave the company a chance to show what was being done, the directors being favoured with substantial orders for fabrics for the new mansion, and the imperial command demonstrating that the work had the hearty approval of His Majesty the Emperor. Four or five years after the commencement of operations the work was going on nicely and the Kyoto Textile Co., Ltd., was able to produce Chinese satin, thereby giving a check to the import of this material. On the contrary the company began the export of Chinese satin to several markets in the East.

By 1896 the new industry was on such a sound footing that the directors found it necessary to increase the capital to 900,000 yen, to admit of an enlargement of business, and further the sales of the Toyo Donsu, the Oriental damask, a silk and cotton satin, which had already been sold successfully in China in trial lots. In 1900 the company made a trial with chiffon, which was so popular in Europe. The trial was a success and the product of the Kyoto factory found

favour at home and abroad. It was exported in large quantities to India and the South Seas, and with the Oriental damask became one of the two specialties of the company. The name of the Kyoto Textile Co., Ltd., was honoured by inclusion in the list of approved suppliers to the Imperial Household in 1902. In 1905 an amalgamation was effected with the Murasakino Textile Co., Ltd., of Atago County, and that company's works were made the Kyoto Textile Co.'s branch factory, this new development calling for an increase of the capital to 1,050,000 yen. At this time the company was favoured with large orders for fine art decorations for the new palace of the Imperial Crown Prince. The capital of the concern was again increased to 2,500,000 yen, in 1907. The next development was the weaving and dyeing of men and women's dress stuffs, brocades, and damasks for India and China, the result being to supplant French and German products in the markets of those countries. Crepes were woven in 1914, and were exported to America, where they met with a favourable reception, the

output of this material now being very large. For the great Imperial Coronation Ceremonies in 1915 the Kyoto Textile Co., Ltd., received a large number of valuable orders for the highest class of fabrics. The manner in which the company and its work have been officially honoured may be seen from the following facts relative to Imperial patronage, and awards won at expositions: On April 27, 1900, the Empress Dowager (consort of the late Emperor Meiji) visited the factory, and the following year, on October 24, the mother of the late Emperor honoured the company with a visit of inspection. On May 23, 1899, and again on April 23, 1903, the Chamberlain Yoneda was despatched to the company's factory by Imperial Command. In June, 1903, the Princesses Tsune and Chika visited the works, and the present Emperor, then Crown Prince, honoured the company with a visit on September 28, 1910. The company was awarded the Effective Medal at the Third National Industrial Exhibition in 1900; the silver medal at the Chicago International Exposition in 1892;

the First Progress Medal at the Fourth National Industrial Exhibition in 1895; the Medal of Honour at the Paris International Exposition in 1900; the Gold Medal at the Fifth National Industrial Exhibition in 1903; the Medal of Honour at the St. Louis International Exposition in 1904, and the Medal of Honour at the Tokyo Taisho Exhibition in 1914.

The company's present capital is Yen 2,500,000. Of recent years the annual output has been valued at Yen 4,500,000. A staff of technical experts numbering 52, and 2,200 workmen and workwomen are engaged in the factories. The principal products of the works are: crepe Georgette, crepe de chine, and other silk crepes; silk and cotton linings, ladies' dress stuffs, fine art house decoration fabrics, and other lines comprising the most beautiful products of the weaver's and the dyer's arts. Mr. G. Tanaka, who holds the Order of the 3rd Merit, and the 5th Rank, is the President and Chairman of Directors. Other Directors are: Messrs. H. Funasaka (Managing Director), J. Naiki

(Order of the 4th Merit), S. Nakai, and M. Iida. The Auditors are: Messrs. H. Funabashi, Y. Tsuda, and H. Ito.

TAKASHIMAYA
(MESSRS. IIDA & CO., LIMITED)

For many years now the well-known firm of Takashimaya, owned by Messrs. Iida & Company, Limited, has been one of the leading dealers in silk piece goods in Japan. No one visiting the Japanese capital has seen what the weavers of the nation can produce in the way of beautiful silks, until an inspection has been made of the magnificent store of Takashimaya. Indeed, the silk-weaving industry owes more to Mr. Shin-hichi Iida and his brother, Mr. Shimbei Iida, for improvement and expansion, than perhaps to any other two persons in the Empire. Born in 1859 in Kyoto, the ancient centre of the silk-weaver's highest art, Mr. Shin-hichi Iida devoted most of his early life to the art of producing silks of incomparable texture and design, obtaining through long years of perseverance and unexampled



TAKASHIMA-YA, LIMITED: SCENE IN THE DEPARTMENT STORE—A CORNER OF THE SCREEN DEPARTMENT

skill the recognition of the public, both at home and abroad, as one of the greatest silk merchants of the world. The name of Takashimaya on a piece of silk embroidery, or figured or plain goods, will carry it anywhere that fine goods are known and appreciated.

Proceeding to China, America, and Europe in 1889, the senior partner of the firm made exhaustive investigations concerning the silk business, and on his return to Japan made important improvements in accordance with foreign demand, especially in silk velvet. The improvements introduced into the weaving of habutai and brocade won express appreciation from that most infallible of all judges of fine silks, the Imperial Household. The fact that the Imperial Household should entrust the Takashimaya firm with the selection of its silk for gifts and other purposes, is the highest commendation a silk house can receive.

Starting in Kyoto, the Tokyo office was opened in 1898 to accommodate the demand from the Imperial Household and the army and navy; and in the same year another branch store was opened in Osaka, the Kobé shop being opened in 1901. It was not until 1893, when the quality of the goods turned out by Takashimaya began to become known abroad, that the Export Department of the company commenced to show rapid development. The refined taste of the Japanese in silks is not fully shared abroad, and the Takashimaya people have been devoting special attention to the foreign demand, with remarkable satisfaction and success. Members of the firm frequently visit Europe and America to study the prevailing taste; and the branch office in Lyons, France, does an immense business in importing silks to that country. The Yokohama branch of Takashimaya deals mostly in goods for export. At the time of the great Paris Exposition, representatives of Takashimaya

went to study the situation in silk, and since then the firm has kept constantly in touch with the overseas demand. The Chinese are always lovers of good silk, and Takashimaya devotes considerable attention to that country, where its large branch office at Tientsin distributes the most exquisite fabrics among the great families of China.

As business began gradually to centre in the Capital—and also to facilitate the business activity of import and export—Iida & Co., Takashimaya, which is the partnership of Messrs. Iida Brothers, established a new company in Tokyo, forming the present joint-stock concern, with a capital of Yen 1,000,000. Mr. Shin-hichi Iida became President of the new concern. The import and export business of this company shows a remarkable development from year to year, a progress that must surely continue, based as it is on a long-established reputation, and high quality of goods. The main store of Takashimaya is situated at No. 1 Nishikonya-cho, Kyobashi-ku, Tokyo. In addition to the branch offices at Yokohama, Osaka, Kyoto, Yokosuka, and Tientsin, the company has offices at London, England, and Sydney, Australia. The London office is at 122 Wood Street and the Sydney office is at 47 King Street.

The Yokohama branch deals in all sorts of silk piece goods, embroideries, velvets, coloured silks and designs of every texture and description, as well as the manufacture of such goods, and those pertaining to the drapery business.

Among the more important activities of Takashimaya, Ltd., in addition to silk piece goods of every description, and silk embroideries and brocades of the finest quality, are cotton, wool, and hemp fabrics, as well as waterproof cloths, and cloths used for uniforms in trains, ships, and tramways. The company imports wool, woollen yarn, woollen cloth and the material therefor, also

industrial and construction materials such as iron, weaving machines, and other appliances. These transactions in general merchandise are principally controlled in the Tokyo office.

Apart from the great silk business conducted by Messrs. Iida & Co., Ltd., there is Iida & Co., Takashimaya (Iida Gomei Kaisha), a partnership of the Iida Brothers, as above referred to, which conducts a magnificent department store at Tokyo, handling dry goods of all descriptions, household furniture and general lines. This department store is housed in a splendid building, and is one of the show palaces of the Capital.

One has only to send for samples of the wonderful silks produced by Takashimaya to be at once charmed by their singular beauty and excellence, from fabrics of the most exquisite and filmy texture to those of heavier weaves. The crepes, embroideries, and brocades are a dream that no one would believe possible until after seeing them. The material for upholstering fine furniture, too, is not to be matched elsewhere, and is found in the best rooms of all the princely houses of Japan. The finest robes of the princes and princesses of the Empire usually come from the house of Takashimaya. A visit to the great store in Tokyo at once brings one among great ladies of wealth and station making select purchases, as well as introducing one to a fairyland of beauty that seems much too exquisite to have been the work of human hands. Nor are the variety and excellence of the fabrics displayed more astonishing than the moderate prices at which the most lovely things are to be had.

EDITOR'S NOTE: In this section we have dealt with those firms handling silk only, but there are a large number of important concerns operating very largely in silk departmentally. Such firms are reviewed in the Import and Export sections of this volume.





VIEW FROM SAKAYE-MACHI-DORI, LOOKING TOWARD THE MONUMENT

XVIII. THE CITY OF NAGOYA

THE city of Nagoya, the seat of the prefectural capital, lies midway between the two great cities of Tokyo and Osaka, and its ambitious citizens are wont to call it the *Chukyo*, or mid-capital, of the Empire, as against Tokyo, the eastern capital, and Kyoto, the western capital. In ancient times Nagoya was an important strategic point of the Tokugawa clan, who erected the famous castle, still extant, and celebrated not only for its proportions but for the golden dolphins which adorn its gables. Until recent years the city attracted little attention save as a stop-over point between Tokyo and Kyoto for tourists who desired to see the castle. In the last few years, however, Nagoya has come to be a centre of great commercial and industrial enterprise, as well as an important railway junction for passengers branching off by the new short line opened up to the west coast of Japan. All through mediæval times the site remained a spacious plain, sparsely populated, whatever community existed being centred around the village of Kiyosu, where Oda Nobunaga had a seat. But when Ieyasu became shogun he made his son Yoshinao lord of the Province of Owari, at which period the present fortress was constructed, and the town soon began to attract population. In fifty years more, in 1657,

Nagoya had grown to a place of over 50,000 people. As the Owari clan was closely related to the shogun, Nagoya was greatly favoured, and after the abolition of feudalism Owari was made a prefecture of the Empire. By 1889 the population of Nagoya had increased to the number of 160,000, and to-day it is not less than 453,000, or a little over that of Kobé.

The municipality of Nagoya is presided over by a mayor and council of aldermen, who manage all municipal affairs; and the city is divided into four wards, known as the east, west, south, and central wards. Nagoya is one of the few important cities of Japan which appears to get along without the burden of large loans. Its municipal taxes work out at the rate of about 2.37 yen per head. The following figures show the revenue and expenditure of Nagoya in an ordinary year:

| REVENUE | |
|---------------------------|-----------|
| SOURCES | YEN |
| City fees | 124,080 |
| Municipal taxes | 1,025,513 |
| Miscellaneous taxes | 162,820 |
| Sundry income | 135,026 |
| <i>Total</i> | 1,447,439 |

| EXPENDITURE | |
|-------------------------------|-----------|
| OBJECTS | YEN |
| Office expenses | 199,447 |
| Public works | 93,375 |
| Public instruction | 463,348 |
| Sanitation | 109,204 |
| Bounties for industries | 6,773 |
| Public charities | 35,730 |
| Police affairs | 25,533 |
| Special account | 441,000 |
| Miscellaneous | 47,638 |
| <i>Total</i> | 1,422,048 |

The Nagoya municipality receives four per cent of the net profit from the city gas company, and three per cent from the Nagoya Electric Company, as well as four per cent from the City Electric Light Company, and manages on its own resources the city waterworks, sewage, a butchery, public cemetery, and disposal of city refuse. The waterworks, started in 1907, at a cost of 5,715,000 yen, are now completed, as is the sewage system, begun about the same time, at an outlay of 3,150,000 yen. The expense for waterworks was assisted by the State Treasury to the extent of 1,302,000 yen, while the amount spent for the sewage system included 1,043,000 yen from the State, the balance having



VIEW OF NAGOYA PIER AND HARBOUR, NOW UNDER CONSTRUCTION

been raised from public loans. The outstanding liabilities of the municipality are as follows:

Waterworks Loan (British)... 7,816,000 yen
(£800,000) redeemable 1917-43

Public Instruction Loan..... 870,000 yen
(redeemable 1915-29)

Total.....8,686,000 yen

For meeting obligations arising out of the above loans the sum of 438,650 yen is annually set aside from the municipal treasury, met chiefly by taxation. The city as an asset holds 2,000,000 yen in Government 4 per cent bonds.

The future of Nagoya lies in its commercial and industrial possibilities, which are very bright. Development in this respect in the last few years has been remarkably rapid; and its central position, together with easy facilities of communication by rail and

sea, have also assisted in its advancement, to say nothing of the advantages offered by its level environs for the erection of great manufacturing works. The streets of the city have been extended on a spacious scale, and along the centre of its main thoroughfare, seventy-eight feet wide, runs a street car line for seven miles. If Osaka is the Manchester of Japan, Nagoya may be regarded as the Birmingham of the country. The annual trade of the city for 1915 amounted to 6,349,564 yen in imports and 3,726,112 in exports, not a very large total compared with Kobé and Yokohama, but an important beginning, when it is remembered that it is but recently that Nagoya has come into possession of a harbour. Beside its numerous and important textile factories, Nagoya is the centre of a great cloisonné industry, and the foremost city of the Empire in the manufacture of clocks, which are turned out in enormous quantities for the Asiatic market. Innumerable other indus-

tries employ the large and skilful industrial population of Nagoya. In this city is situated the Japan Car Works, with a capital of over 1,200,000 yen, manufacturing railway rolling stock of all kinds. The Miye Spinning Mill, with a capital of 10,250,000 yen, is engaged in spinning cotton yarn and weaving cotton fabrics, employing over 2,000 operatives and having an annual output worth 3,000,000 yen. Another important concern is the Suzuki Violin Factory which supplies fine toned instruments which will bear favourable comparison with the best made in Europe. Large quantities of these instruments are sold in the United States. The Japan Pottery Company employs over 2,000 hands in manufacturing a kind of porcelain peculiar to the city, known as Nagoya ware; while some ten miles away is the great Seto factory where 600 kilns are turning out the famous ware of the same name. Nagoya potters employ about 5,000 hands and their annual output is valued at about 4,000,000 yen, most of

the pottery going to Europe, America, and Australia. The total value of Nagoya's cotton output is about 8,000,000 yen. The making of fans, *geta*, confections, straw and chip braid, lanterns, toys, hosiery, and lacquer occupies large numbers of people as well.

The harbour of Nagoya lies some distance southward from the city, facing the Bay of Isé. Though much money has been expended upon it the results are not wholly satisfactory, as it does not yet afford accommodation for ships of any great size. In addition to the 3,000,000 yen or so expended on the harbour, at least another 2,000,000 yen will be necessary to bring accommodation up to the needs of the city. The annual tonnage entering the port is already in the vicinity of a million, however, and shipping is expected to increase with further harbour improvements.

Nagoya is also well equipped with facilities of modern civilisation, having good schools,

including a polytechnic high school and a national high school. Other important buildings are the Prefectural Office, the Appeal Court, and the Headquarters of the Third Imperial Army Division. Tsuruma Park lies toward the east end of the city, and Nakamura Park, toward the west, marks the birthplace of such heroes as Hideyoshi and Kato Kiyomasa. In this locality is also a shrine dedicated to the spirit of the Shogun Ieyasu and his son Yoshinao. Nagoya has plenty of temples and Christian churches, and the vitality of the native religions may be inferred from the number and vigour of the national religious festivals that annually take place. Over all towers the noted castle, dominating the whole city and plain for miles. Every one approaching the city is struck by its unique and imposing proportions rising solemnly over the city, the two golden dolphins still lifting their tails gamely from the horns of the great tower. No one would suppose that they were of gold or that they were

forty-eight feet long, but it is averred that they are, and were placed in that position to avert fire, the fish being regarded as sacred and a master of water, of which the god of fire is in constant terror. The amusement places, theatres, and dancing halls of Nagoya are a feature of interest to the tourist and sightseer. The Nagoya Hotel affords comfortable accommodation to foreigners at reasonable rates.

THE MITSUI BUSSAN KAISHA, LTD.,
NAGOYA BRANCH

THE famous Mitsui Bussan Kaisha, Ltd., occupies a leading position in the rapidly increasing trade of Nagoya, where a branch was established in 1899. This branch engages principally in imports and exports, sales on commission, transportation, insurance agency, and brokerage generally. Since the original establishment the branch has developed to a surprising extent, and its



SCENE IN NAGOYA HARBOUR



THE NEW OFFICES OF THE MITSUI BUSSAN KAISHA, LIMITED

annual transactions now total over Yen 30,000,000 in value. The whole scope of the business has been enlarged many times, new departments continually being added. At present the business includes departments for handling cotton, cereals and fertilizers, coal, machinery, sugar, timber, and sundry goods.

One of the main items of export is enamel ware of all descriptions, and other leading lines are packing cases of all kinds, bean-oil, cotton yarn, and cotton piece goods. Imports are mainly rice, soya beans, bean cake, machinery, and hardware. In the domestic trade the Nagoya Branch of the Mitsui Bussan Kaisha, Ltd., handles practically every item of general merchandise. Mr. G. Mitsui is the President of the company and Mr. S. Futagami is the Manager. The premises of the company are located at Sasashima-cho, Shichome, Nakaku, Nagoya, where a very handsome new building has been erected which is one of the most conspicuous and extensive structures in the city, and is equipped in the most modern manner throughout.



LOOKING TOWARD THE MONUMENT FROM THE ROOF OF FUJIMOTO BILLBROKER BANK, NAGOYA



XIX. FORESTRY

AFFORESTATION—DISTRIBUTION—FOREST ACREAGE AND REVENUE—OTHER FOREST PRODUCTS

THE topographical formation of Japan, with its numerous hills and mountains, as well as the mild and humid climate of the country, both go to favour forest growth, and consequently over seventy per cent of the total area is so occupied. The beauty of Japan's thickly wooded plains and uplands has no doubt left its æsthetic mark on the people, moulding the native mind into an appreciation of sylvan scenery and of nature generally, and revealing an innate love of trees and shrubs among Japanese of all classes.

Commercially Japan's forests have not bulked very largely as yet in the national economy, chiefly for the reason that the Government exercises a jealous care and pro-

tection over them, not only preserving them intact as far as possible, but adding considerably to their original extent by afforestation. Japan regards her forests as a trust inherited from the past, and the entail is profoundly respected. The result is that she still has a large and valuable area of forest land, while neighbouring countries are almost denuded of their arboreal fauna. The system of forest management in Japan aims at securing continuity and at the same time increasing the most valuable timber-producing trees as a national asset. Though it is still but a few years since forestry and dendrological research have been placed on a scientific basis in Japan, very creditable progress has been made in all directions. The Forestry Bureau

established in 1897 aims at a thorough working of the forests, disposing of those not needed as State lands, supervising the survey of forests, regulating the procedure and operations of forest officers, the afforestation of bare lands, the improvement of transportation facilities for timber, the purchase of forests required by the State, and the promotion of improvement works. The expenses of the work are borne from the proceeds of the forests themselves. The afforestation system especially has been vigorously developed, trees being regularly planted on hillsides and denuded areas as well as in the uncultivable land of mountain regions, thus adding to the beauty of the landscape, protecting the hills against landslides, feeding



SCENE NEAR KYOTO



BRINGING LOGS DOWN THE RIVER



CRYPTOMERIA GROVE AT NIKKO

springs and rivers, precluding floods, improving the public health, and creating a forest heritage for posterity. In Japan, forests are planted and harvested with the same regularity and care as any other crop, the people showing the same patience for crops of decades and centuries as for those of annual yield. In 1910 Forest Plantation Encouragement Regulations were issued, granting subsidies to towns and villages undertaking afforestation. In 1911 the sum of 15,598,000 yen was appropriated, to be expended over a period of nineteen years, for readjustment of watercourses, and the areas of prohibited exploitation were extended.

DISTRIBUTION

In Japan, forests clothe the slopes of most of the mountains, abounding more particularly in the central portion of Honshu, and

in Hokkaido and Saghalien, as well as in Formosa. The lack of uniformity in distribution is due for the most part to peculiarities of soil. Density of population renders paramount the claims of agriculture; and consequently, in those regions favourable to cereal production, such as the islands of Shikoku, Kyushu, and certain portions of Honshu, forest areas naturally had to give way to cultivated lands. Broadly speaking, there are four zones of forest distribution in Japan. The tropical zone extends through south Formosa and the more southern archipelagoes generally: that is, through Luchu and the Bonin Islands, where the bamboo and the banyan attain their most luxuriant growth. The sub-tropical zone covers north Formosa, Kyushu, and Shikoku, as well as the lower parts of Honshu, where broad-leaved evergreens, conifers, and broad-

leaved deciduous trees predominate. Here the camphor, the oak, and the pine flourish, as well as the box and the ilex. There is also a great growth of bamboo, and the edible fungus that thrives on the pine trees, known as *matsutaké*. The temperate zone runs through the north part of Honshu and the southwest regions of Hokkaido, where the forests most economically important are found, such as the *sugi*, or cryptomeria, the *hinoki* and the black and red pine, as well as the oak, chestnut, maple, and several other valuable woods peculiar to Japan. Among the more than sixty species available for use, the peculiarly scented fir known as *hinoki* is perhaps the most valuable, being tough, strong, close-grained, and excellent for house construction, shipbuilding, and bridge work. The *sugi* which resembles the great sequoia of California in appearance and texture, is one of Japan's noblest trees, thriving well in moist soil and on sunny places, specimens often measuring six feet in diameter and 130 feet in height. The wood is light yellow with a tinge of red, and is used largely for the manufacture of wooden kitchen utensils and tools. The *sawara* is used much for boards and planks, being a wood that is soft and splits easily. The *momi* (maple) is used largely for making pulp for paper and for tea-chests. The pines, both red and black, all through this region make valuable timber. Among the broad-leaved trees of this zone, the *keyaki* is supreme in respect to utility and value. It is found in mixed woods all through Honshu, Shikoku, and Kyushu, attaining its best development in calcareous soils. The tree grows slowly, but its timber is strong, hard, and lustrous and it is in great demand for building, carving, and good furniture, some species having a beautiful grain. The *buna* (beech) is a very widely distributed species, attains a great size, and was used by the ancient aborigines of Japan for making their dug-outs. The *inuengi*, the chestnut, and the oak are found through Honshu and the plains of Hokkaido, and are used for furniture and railway sleepers. In the frigid zone of the high mountains of Honshu and the north-east part of Hokkaido the black and white pine is the most valuable wood, growing with great luxuriance in the mountains of Ishikari, Teshio, Tokachi, Nemuro, and Kitami. The wood is light, coarse-grained, and liable to warp, but is always in demand for building work. In the Kurile Islands there is little timber of much value, chiefly a stunted larch and white birch. It would, of course, be impossible to discuss all the valuable woods of Japanese forests in the space at our disposal. Further treatment of the subject will be found under the Flora and Fauna of

Japan (page 19). The most famous primitive forests still intact are at Kiso in Nagano, at Nagasawa in Akita, and Tsugaru in Aomori. The beautiful forests at Yoshino in Yamato, Tenryu in Shizuoka, and Oso-washii in Kii are of artificial origin. Almost the whole of the Island of Saghalien, except a small sandy area along the coast, is covered with virgin forest of large and valuable growth. The forests of Korea have been greatly depleted, but under Japan's administration reforestation is making great headway. Japan has also fine timber forests on the Yalu River, whence valuable shipments of timber constantly come to Japan proper, usually in logs and barks.

FOREST ACREAGE AND REVENUE

THE forest areas of Japan are classified according to ownership, as follows: Those belonging to the State; the Crown; to communal bodies; to shrines and temples; and to private individuals. These are again divided by the Government into forests under Government protection, forests open

sistent with the possibilities, yet there is evidence of considerable progress in this direction. The revenue of State forests for the financial year ending March, 1915, derived from sale of products, by-products, rents, and other receipts, was 10,275,822

7,242,205 yen, so that the net profit of the year's working was only 3,766,492 yen, not including Hokkaido and the Bonin Islands. The average profit for the previous four years, however, was about five million yen a year. The income from Crown forests

| PRODUCTS | 1905 (Yen) | 1909 (Yen) | 1914 (Yen) |
|-------------------------------------|-------------------|-------------------|--------------------|
| Logs and barks..... | 22,334,610 | 38,899,380 | 38,485,340 |
| Railway sleepers..... | 703,580 | 1,342,140 | 1,591,371 |
| Wood for clogs..... | 1,254,420 | 1,818,970 | 2,319,809 |
| Pulp wood..... | 231,430 | 523,500 | 1,028,512 |
| Bamboo..... | 1,280,870 | 1,697,700 | 2,439,985 |
| Hinoki and Sugi bark..... | 659,120 | 1,021,070 | 1,334,184 |
| Charcoal..... | 11,393,010 | 18,419,460 | 22,634,342 |
| Mushrooms..... | 1,344,500 | 2,363,710 | 2,400,732 |
| <i>Total, including others.....</i> | <i>59,302,180</i> | <i>96,944,560</i> | <i>108,310,872</i> |

yen, which was three times that of ten years before. An additional income of 2,699,201 yen came from sales of forests and plains. But expenses were heavy, amounting to

can only be estimated, a rough calculation making it about 2,000,000 yen; while the revenue from private forests is estimated at about 63,000,000 yen a year. The total output of timber for the year 1915 was 229,832,256 cubic feet, valued at 34,588,387 yen; and of fire-wood and charcoal, 296,261,460 cubic feet, valued at 28,378,216 yen. The value of the principal forest products of Japan is given in the preceding table for the years 1905, 1909, and 1914.

It will be seen that the productivity of Japanese forests greatly increased during the ten years above indicated. The figures for the years up to 1917 are not materially different.

| CLASSIFICATION | PROTECTION FORESTS ACRES | UTILISATION FORESTS ACRES | TOTAL ACRES |
|--------------------------|--------------------------------|---------------------------------|-------------------|
| Crown Forests..... | 26,805 | 4,458,175 | 4,484,980 |
| State Forests..... | 1,517,767 | 18,073,713 | 19,591,480 |
| Communal Forests..... | 610,452 | 5,923,845 | 6,534,297 |
| Temples and Shrines..... | 18,603 | 266,980 | 285,583 |
| Private Forests..... | 531,555 | 15,107,920 | 15,639,475 |
| Moors and Plains..... | ..... | ..... | 5,459,882 |
| <i>Total.....</i> | <i>2,705,182</i> | <i>43,830,633</i> | <i>51,995,697</i> |

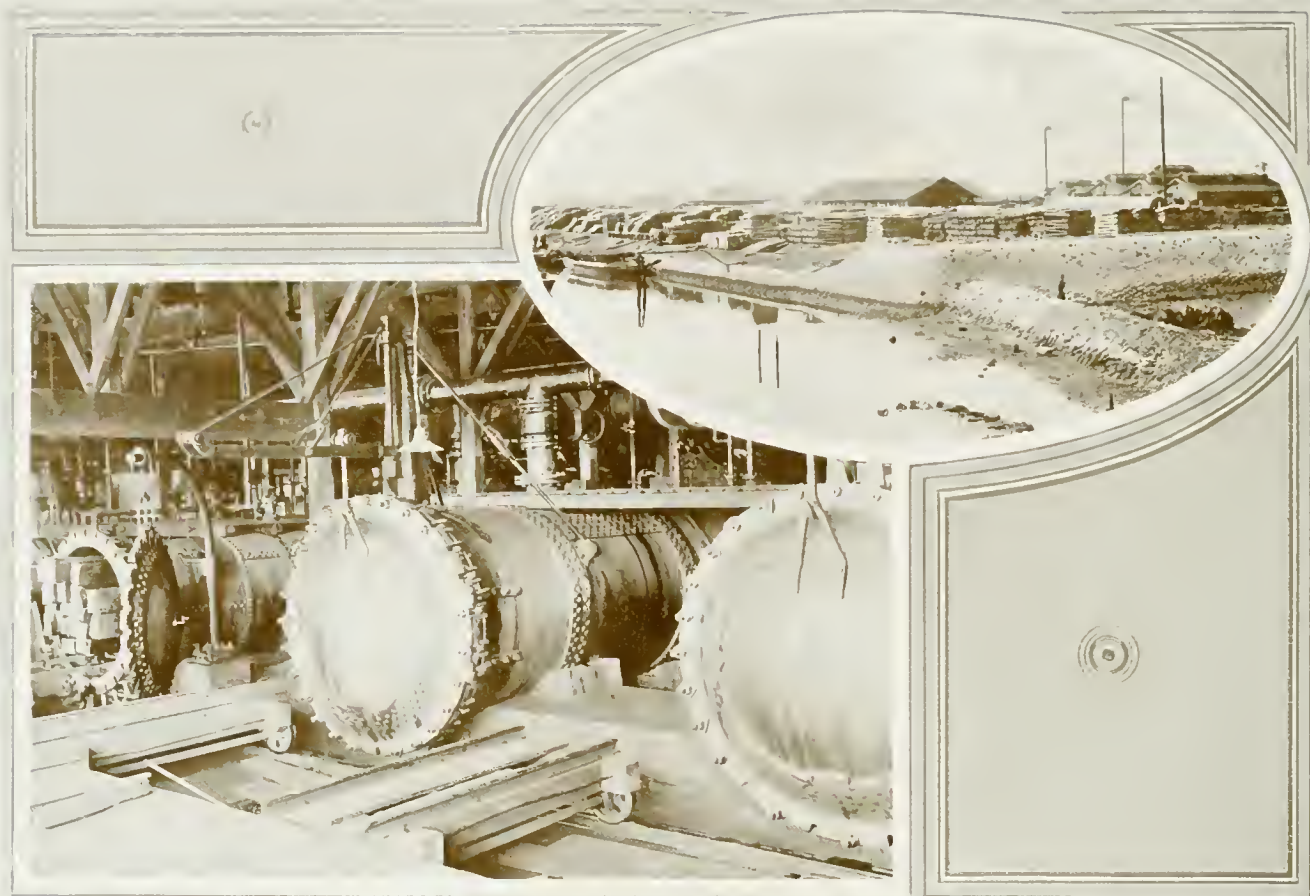
to exploitation, and forests under the control of villages or towns which are entitled to a percentage of the forest proceeds. The total area of forest and wild land in Japan at the end of March, 1915, was 51,995,697 acres, owned as above.

The State forests represent those which the feudal princes, at the time of the Restoration, surrendered to the Government, some of which were taken as Crown Lands for the benefit of the Imperial Household, and which are now under the administration of the Minister of the Imperial Household; while the State forests are under the Forestry Administration Bureau in the Department of Agriculture and Commerce. In early times shrines and temples were erected in forests to protect the latter from molestation, and the titles to these properties have been recognised by the Government. The forests in Hokkaido, Saghalien, Formosa, and Korea are under the Governors-General of these territories.

Forestry as a source of revenue has not yet attained an importance in Japan con-



CAMPHOR TREE



ORIENTAL CREOSOTING CO., LTD.: (ABOVE) GENERAL VIEW OF OSAKA WORKS—(BELOW) CYLINDRICAL CHAMBERS IN WHICH CREOSOTE OIL IS INJECTED INTO TIMBER

OTHER FOREST PRODUCTS

FOREST growths that usually go to waste in other countries are made profitable use of by the Japanese to an enormous extent. The forests of the country are rich in long grasses and undergrowth of great variety, which are much used as fuel and fertilizer. Seeds, acorns, and walnuts are also a great item of forest produce, and wax and oil are extracted from various trees for industrial uses. The barks of certain species of oaks, alders, and chestnuts is used for tanning and dyeing, while the stone quarries of the forest districts are of great utility and value. Up to a few years ago all timber in Japan was sawn by hand, but now, with the increasing industrial utilisation of wood, there are numerous private saw-mills representing an invested capital of some 7,000,000 yen, with ten Government mills for the conversion of timber, in Aomori, Akita, Mumamoto, Oita, and Kochi. The amount of timber converted by all the mills of Japan in 1915 was about 229,833,256 cubic feet, with a value of 34,588,387 yen, while the output in fagots was 592,523,520 cubic feet,

valued at 28,378,216 yen. The cost of transportation from the forests to the lumber mills is very high, particularly when roads are few and rough, with torrential streams to be crossed. In Hokkaido the timber can be skidded or hauled over the snow, but in the more southern parts of the Empire such advantages do not exist. No doubt as time goes on better roads will be made into the heart of the timber regions and steam power utilised for transporting the logs to the mills, as in other countries. The principal exports of timber from Japan are to China, Great Britain, and the United States, with some to Australia, chiefly for making tea-chests and match-wood, valued at about 10,000,000 yen annually; while wooden manufactures, such as bent-wood chairs, toys, and articles of furniture, are increasing in export. Japan's imports of timber, chiefly teak for ships and Oregon pine for flooring, amount to about 2,500,000 yen in value annually, the teak coming principally from Siam. The camphor industry is one of Japan's important forest undertakings; but it must be treated under the head of Government Monopolies.

THE ORIENTAL CREOSOTING CO., LIMITED

THE value of the system of preserving timber by the injection of creosote oil is too well known to require much discussion. It is adopted in all countries where timber has to be exposed to the elements, or is likely to be attacked by white ants, or other insects. Exhaustive tests under practical conditions have shown that creosoted timber will outlast all others, and it is used nowadays for virtually all classes of heavy construction, including wharf piles, etc. In Japan the industry is largely in the hands of the Oriental Creosoting Co., Ltd., an Osaka company which has obtained a number of patent rights under Japanese laws for its method of treating the timber. The company is also the sole contractor for all the creosote oil produced in Japan, which amounts to about 10,000 tons yearly. This oil is the best grade of coal tar product, obtained from coal gas tar, or coke oven tar. It is entirely liquid and its specific gravity is at least 1.03 at 38 degrees Centigrade. When distilled by the common method, that

is, using an 8-ounce retort, asbestos covered, with standard thermometer, bulb half an inch above the surface of the oil, the oil, calculated on the basis of the dry oil, gives no distillate below 200. C., and not more than 5 per cent below 210. C., not more than 25 per cent below 235. C., and the residue above 355. C., which is more than 5 per cent, is soft. With a large stock of oil, the company is carrying on an extensive industry, preparing well preserved timbers, for which the two creosoting plants at Osaka and Tokyo are working constantly. From August, 1907, to the end of 1917, the Oriental Creosoting Company has treated about 12,000,000 cubic feet of timber, under its special processes. Of this output of preserved timber, railway sleepers form the largest part, about 8,000,000 having been treated. The timbers used for these sleepers are all of Japanese growth, being mainly beech, oak, and elm. Electric

poles have been creosoted to the number of about 1,200,000 cubic feet, the wood in this case being chiefly cryptomeria. The balance of the quantity treated has comprised heavy structural timber, such as piers, piles, etc., pavement blocks and sundry lines, the materials generally being "Matsu," or Japanese pine. The company is injecting oil into timbers with several different processes. In the main the idea is the universal one of drying the timber, while at the same time extracting all air from the pores in hermetically sealed cylindrical chambers, and then forcing creosote oil into the pores. Timber so treated is practically immune from attacks by fungus, white ants *xylotrya*, and teredo worm. The Oriental Creosoting Company has given innumerable demonstrations of the success of its system, and inquirers are readily invited to apply to the Japanese Imperial Railways, the Telephone

and Telegraph Department, the Civil Engineering Bureau and the Formosan Government, as to the official view of the success of the work carried out.

Apart from the actual work of treating timbers, the company is also trading in creosote oil, and sells a large part of the surplus product, which it controls, to the United States. Within recent times a quantity of 10,000 tons has been exported and has been used by the Pacific Creosoting Company of Seattle, and others. The head office of the Oriental Creosoting Company is at No. 1 Nakanoshima, 3-chome, Kitaku, Osaka. The Tokyo office is at No. 8 Kagachō, Kyōbashi-ku, Tokyo. The works are situated at Sakurajima-cho, Nishi-ku, Osaka, and No. 593 Senda-cho, Fukagawa-ku, Tokyo. Mr. Yoshitomi Hiraga, Doctor of Chemistry, is in charge of the company's technical operations.





A TYPICAL FISHING VILLAGE

XX. FISHERIES

PRESENT CONDITIONS—ANNUAL CATCHES—DEEP-SEA FISHERIES—MARINE MANUFACTURED PRODUCTS—COMMERCIAL NOTICE

WITH a coastline of over 18,000 miles, exclusive of Korea, and a geographical extension from the torrid to the frigid zone, with innumerable bays, gulfs, and river-mouths, it is but natural that the densely populated islands of Japan should form one of the greatest fishing countries in the world. As the daily fare of rice and vegetables needs to be supplemented by some more invigorating food, the Japanese must to a very great extent resort to the sea for sustenance; and the habit has long been confirmed by Buddhism in its aversion to a meat diet.

The importance of the fishing industry to Japan is indicated by the fact that almost 1,000,000 persons are engaged in it, about 800,000 exclusively and the rest partially so employed. The number of boats on the Japanese fishing grounds is over 400,000, mostly small, native, open craft about thirty feet in length, though foreign-built boats and steam trawlers are gradually coming into use, as the people can afford them. When the total value of the annual catches, which amounts to about 95,000,000 yen, is divided among the fishing boats, it amounts to an average of no more than 237 yen for each crew of five, a very small return indeed for such hard and perilous toil. The unprofitable aspect of the industry accounts for the gradual decrease in the number of fishing boats witnessed during the past few years,

amounting to over 14,000 fishing craft in the last decade. The Japanese fisherman is easily attracted by any labour offering a higher living wage. Owing to the frequent and treacherous storms of the Japanese waters the lives of the toilers of the sea are seldom without imminent peril, and more than a thousand boats, with as many crews, suffer shipwreck annually. It may be, however, that as time goes on and more seaworthy craft become possible, the fishing industry of Japan will attract increasing instead of decreasing numbers, as at present. Already 166 trawlers have been introduced, although the European war has reduced the number to some extent, while fishing boats of Western type now number over one thousand in all.

ANNUAL CATCHES

JAPANESE waters afford an enormous number and variety of fish, though intensive methods have reduced the species in some cases. The Marine Biological Bureau at Tajima has classified over four hundred species of marine products that may be utilised either as food or fertilizer, or as providing material for various industries. If the necessary capital, therefore, were forthcoming, and better equipment provided, the sea harvest of Japan could be made infinitely more economically popular. It is in this connection encouraging to note that certain Japanese

capitalists are beginning to be interested, and already two or three have made successful ventures. In accordance with the Fishery Agreement which Japan made with Russia in 1907, Japan's fishing rights along the coasts of Siberia and north Saghalien were confirmed, and now extend as far north as Kamchatka. The value of the catches in these northern waters is about 8,000,000 yen a year, while the fish taken in the waters of Korea, Kwantung, and Formosa are worth at least 11,000,000 yen more, which, added to the total of Japan's fishery harvest at home, brings the grand total for the Empire up to about 113,000,000 yen annually. The abbreviated table on the next page will give some idea of Japan's inshore and freshwater fisheries for the year 1914, with the figures for two previous intervals of five years each, for comparison. The figures for 1915, 1916, and 1917 are in most cases less.

The herring fishery is chiefly carried on along the western shores of Hokkaido and the north of the main island, March and May being the best months. The fish are taken with pond-nets and gill-nets, and only the parts along the backbone are used for food, the rest being turned into fertilizer. Besides herring, the principal fish taken on inshore grounds are salmon and salmon trout, for which gill-nets and drag-nets are used. Sardines and anchovies are caught all along the Japanese coast, seines and purse-seines being



CORMORANT FISHING—TWO GROUPS ENGAGED IN SPEARING SALMON TROUT

chiefly used. Formerly these fish were used as fertilizer, but in recent years they have been tinned and are finding an increasing sale abroad. The bonito, a very favourite fish with the Japanese, is taken chiefly in the warmer waters, being caught with a hook, using live sardine for bait. Tai is the principal fish of spring and summer, the best coming from the Inland Sea waters. The fish are corralled by drive-nets and then taken with a seine, but sometimes the fish is taken with long lines. This fish is seldom salted, as the people regard it as the best product of the sea and want it always fresh. The *sawara* also comes mostly from the Inland Sea, and as it swims in shoals, it may be taken with drift-nets. The tunny, which is found everywhere, is taken in the same manner. Though usually eaten fresh, the tunny is often salted or dried. The yellow-tail is caught for the most part in the Japan Sea and along the southwestern coast, and may be eaten either fresh or salted. One of the most ubiquitous of Japanese fish is the mackerel, which is caught with spread-nets and seines, and usually preserved in salt. Cod is taken with lines and nets, and there is some business done in cod-liver oil. The Japanese salmon is a very fine fish. It ascends the rivers flowing into the Japan Sea and into the Pacific towards the north, especially in Hokkaido and north Honshu, where it is taken with river-seines and traps, but at sea the salmon is caught with pound-nets. Most of the catch is salted or tinned. Salmon trout is another delicious product of Japanese waters, and is taken and preserved in the same manner as salmon.

The sea-ear is one of Japan's most important shell fish, being valuable both for its flesh and for the mother-of-pearl found in its shell. The flesh is exported to China and brings in a considerable income. There is a growing demand for oysters in Japan, and the culture of this bivalve is now exten-

| SPECIES | 1904 | 1909 | 1914 |
|---------------------------|------------|------------|------------|
| | Yen | Yen | Yen |
| Herring..... | 8,070,337 | 5,938,312 | 10,474,131 |
| Sardine and Anchovy..... | 7,330,969 | 9,353,197 | 10,180,426 |
| Bonito..... | 3,613,796 | 7,208,462 | 7,683,158 |
| Mackerel..... | 1,874,660 | 2,366,185 | 2,727,119 |
| Tunny..... | 1,126,067 | 2,471,527 | 2,982,706 |
| Yellow-tail..... | 1,878,978 | 3,127,715 | 4,357,824 |
| Tai (Pagrus)..... | 3,334,899 | 5,465,386 | 5,785,126 |
| Karei (Flatfish)..... | 1,439,969 | 1,922,654 | 2,627,771 |
| Sawara (Cybium)..... | 707,164 | 1,295,835 | 1,150,105 |
| Horse mackerel..... | 899,582 | 1,479,713 | 1,244,884 |
| Grey Mullet..... | 869,295 | 1,320,627 | 1,063,683 |
| Salmon..... | 1,037,050 | 918,523 | 1,291,566 |
| Eel..... | 604,460 | 1,160,334 | 1,238,995 |
| Sea-ear..... | 576,485 | 730,554 | 979,472 |
| Squid and Cuttlefish..... | 3,393,143 | 3,483,046 | 5,141,472 |
| Prawns, Lobsters..... | 1,333,455 | 1,686,899 | 2,291,013 |
| Others..... | 17,229,309 | 27,663,740 | 33,834,367 |
| <i>Total</i> | 55,229,618 | 77,592,709 | 95,053,818 |

sively carried on. At Tobashima, in the Bay of Ago, Mr. Mikamoto has the unique monopoly of hatching pearl-oysters, the method being to raise the oysters in the usual bed and to introduce grains of mother-of-pearl between the shells of three-year-old oysters, the irritation thus set up causing the fish to put forth the secretion which produces the pearl; and in four years' time a pearl of considerable size and beauty is formed.

Lobsters may be taken anywhere along the coast of Japan, gill-nets being used. The Japanese lobster appears to be different from the same fish in Western countries, as it has no claws. The prawn, which it resembles, abounds in the Inland Sea waters and warmer inlets, and is taken chiefly with trawl-nets, exports being large to China. The cuttlefish, squid, and octopus find increasing use at home and are also largely exported to China, being caught by trawls and with lines; while the sea-cucumber,

or *bêche de mer*, is found mostly in Hokkaido and along the coasts of Honshu. This product goes chiefly to China, as does the shark-fin, which is taken mostly off the coasts of Oita. There is in Japan an immense harvest of seaweeds, which grow principally along the shores of Hokkaido and southeast Honshu. The various weeds are taken and dried, and usually pressed into form for the market, being used as a relish with soup, fish, or rice. When dissolved and properly treated the weed produces *kanten*, a kind of gelatin, which is much used for food and as isinglass.

DEEP-SEA FISHERIES

ON account of the striking ingenuity and inventiveness displayed by the Japanese fisherman, resulting in diversity of method and implement in catching fish, the inshore waters in recent years have been suffering from a growing scarcity of fish. Consequently the Government is promoting the



DRYING BONITO FISH—DEVIL FISH—A SARDINE CATCH—TAI FISH—OCTOPUS, TOKYO BAY—ON THE LOOKOUT FOR
SARDINES—BLUE FISH—SUN FISH—FISHWIVES



DYEING NETS, A WEEKLY OPERATION, WITH A VIEW TO PRESERVATION—MENDING THE NETS—ROLLING TWINE
FOR THE MANUFACTURE OF BLUE-FISH NETS

encouragement of better and more extensive equipment for deep-sea fishing. There are now about 800 deep-sea boats in use, propelled mostly by oil engines, and going after cod, tunny, bonito, mackerel, shark, and whale, with a few sealers. In 1898 the Government granted State aid to the amount of 150,000 yen to encourage pelagic fisheries, limited to those equipped for taking bonito, and those using drag-nets, drift-lines and so on. The amount has since been increased to 200,000 yen a year, and vessels entitled to a share of it must not be over 200 tons for steamers, and 150 tons for sailing ships, with the exception of whalers, which may be as large as 400 tons. Under State encouragement the deep-sea fisheries of Japan have made remarkable progress in the last ten years. Before State aid was granted there were only 9 deep-sea vessels, aggregating 581 tons, their annual catch being valued at 77,000 yen. To-day there are over 1,800 deep-sea boats with a total tonnage of 18,345, and taking an annual catch worth 5,860,087 yen.

Owing to intensive methods the seal fisheries of Japan have been exhausted and the Government, after negotiation with Great Britain, the United States, and Russia, in 1911 agreed to prohibit the taking of fur seals for a period of ten years, expending some 45,000 yen in the effort. In addition to seals, such fur-bearing animals as otters, black foxes, and sea lions are protected. After the introduction of Norwegian methods of whale fishing the species frequenting the waters of Japan greatly declined, especially right-whale, sulphur-bottom, and hump-back, which used to appear in great numbers off the coasts of Shikoku and Kyushu. Consequently the Government had to issue an ordinance for the protection of whales, and in 1909 the number of whalers was limited to thirty. The present whaling grounds are off Kinkazan Island in summer and as far south as Tokyo Bay, and the Sea of Kishu and Tosa in winter. Korean waters have recently been taken by Japanese whalers, formerly monopolised by the Russians. The annual value of the whales taken by the

thirty Japanese vessels now thus engaged is about 1,300,000 yen, and the total for deep-sea fisheries is about 6,000,000 yen.

MARINE MANUFACTURED PRODUCTS

WITH the rapid development in means of transportation and the increasing demand for prepared marine products, this aspect of Japan's industry has shown remarkable growth in the last few years. In 1900 the total income from this source was a little over 33,000,000 yen; in 1910 it had grown to 43,000,000 yen; and to-day it is over 60,000,000 yen. The greater part of the industry is in dried fish, especially bonito, cuttlefish, tunny, and sardine, besides the immense development of the tinned fish industry, particularly crab and salmon as well as sardine, to say nothing of various kinds of shell-fish. The table on the following page gives the progress of Japan's fish-products industry for the last ten years, in intervals of five years. The total for 1915 was 63,527,567 yen, and for 1917 somewhat less.

| PRODUCTS | 1904 | 1909 | 1914 |
|---------------------------------|------------|------------|------------|
| | Yen | Yen | Yen |
| Dried cuttlefish and squid..... | 3,021,959 | 3,264,115 | 4,466,888 |
| Sardine, dried and boiled..... | 2,234,877 | 2,841,711 | 3,615,194 |
| Dried bonito..... | 3,958,456 | 6,089,759 | 8,707,716 |
| Seaweeds..... | 909,472 | 1,466,123 | 1,809,263 |
| Isinglass..... | 865,586 | 1,531,532 | 1,833,340 |
| Fish guano..... | 6,516,503 | 3,990,574 | 10,756,748 |
| Herring bone..... | 2,349,338 | 919,404 | 1,325,342 |
| Others..... | 12,737,954 | 20,116,522 | 27,765,178 |
| <i>Total</i> | 32,592,345 | 40,219,740 | 60,279,669 |

Another industry of great antiquity in Japan, and of increasing importance, is that of salt-refining from sea-water; but as this is a Government monopoly it will be treated under that head. The annual output is about 1,600,000,000 pounds, valued at about 12,000,000 yen.

The manufacture of by-products from marine industries has greatly developed in recent years, and now such imports as iodine, iodide of potash, isinglass, and shell buttons have quite ceased, resulting in considerable exportation of these commodities abroad. This progress has been achieved chiefly under encouragement from the Government Bureau of Marine Products. The shell button industry has increased to an extent that shells have now to be imported from Singapore, Australia, and the South Seas to meet the demand, while the market for Japanese tinned crab and salmon has shown unusual development of late. The accompanying table indicates the progress in marine by-products for the last five years:

The total of Japan's annual exportation of fish and marine products now generally amounts to about 20,000,000 yen, going mostly to China, the United States, Europe, South America, and the South Seas. Of this total about 12,000,000 yen represents manufactured products.

The Imperial Government has encouraged the promotion of various institutions for the improvement of fisheries and the increasing of marine products, and also established Experimental Fishery Stations and Fisheries

Schools, there being at present some twenty-nine of the former and five of the latter. At the same time there are 3,669 fishery guilds for protecting the interests of fishermen, with a membership of 468,100; while the Marine Products Guild numbers 212 associations, with 309,846 members. The artificial breeding of important fish like salmon, trout, carp, eel, and also of snapping-turtles is carried on in numerous places at an expense of some 3,000,000 yen a year.

THE ORIENTAL WHALING CO., LIMITED

The frequently heard statement that whaling as an industry is a thing of the past can not be applied to the industry in Japanese and adjacent waters. The Oriental Whaling Co., Ltd., is doing an extensive trade in oil, and with modern methods reports an increasing production of oil and other whale products every year. This company was established in 1909 by an amalgamation of four companies, namely, the Oriental Fishery Co., the Nagasaki Whaling Co., the Dai-Nippon Whaling Co., and the Imperial Marine Products Co.'s whaling department. The

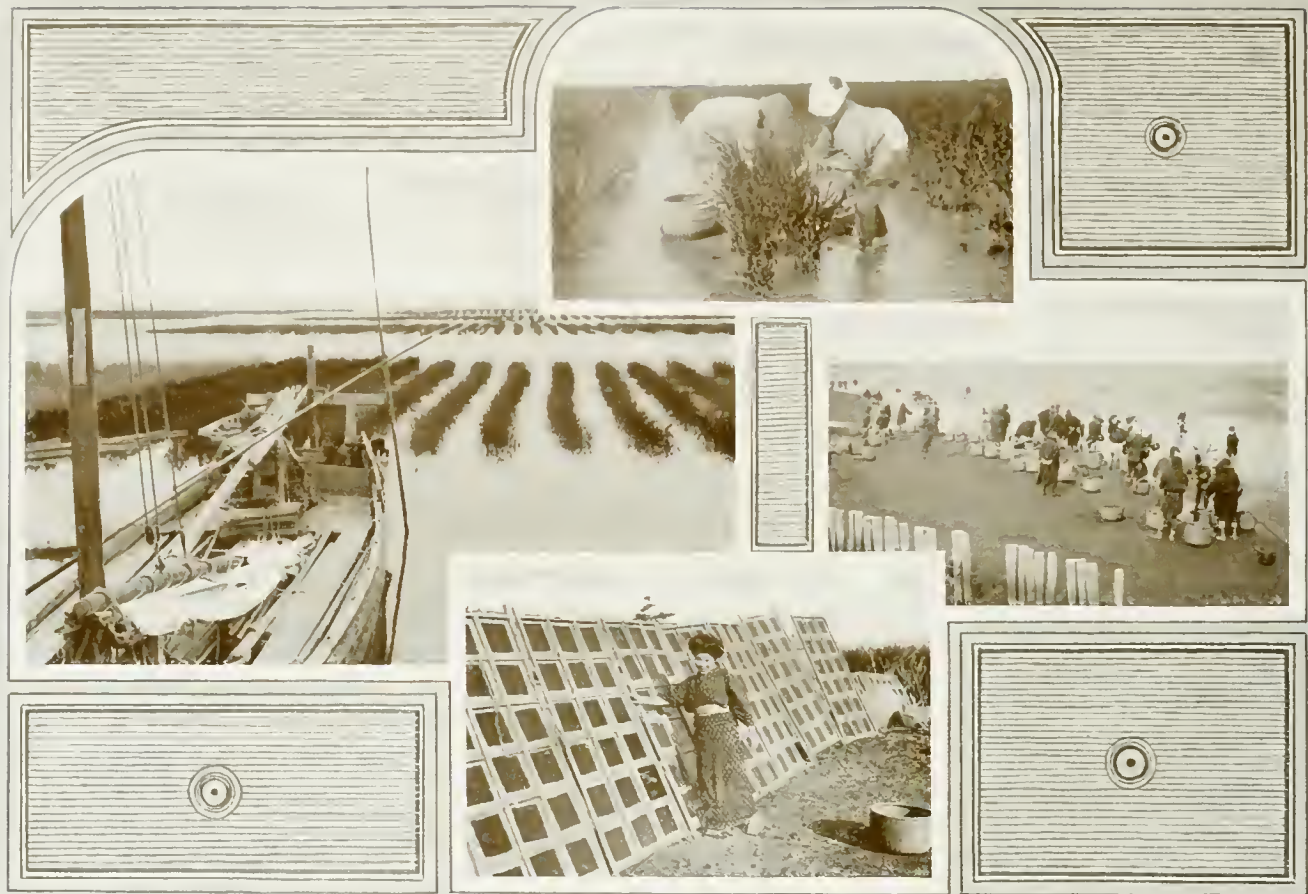
| PRODUCTS | 1911 | 1916 |
|-----------------------|-----------|-----------|
| | Yen | Yen |
| Iodine..... | 242,789 | 1,209,207 |
| Iodide of Potash..... | 502,984 | 857,562 |
| Gelatine..... | 1,531,532 | 1,832,240 |
| Shell buttons..... | 1,476,530 | 1,550,823 |
| Tinned products..... | 1,981,032 | 2,653,915 |
| <i>Total</i> | 5,734,867 | 8,103,747 |



FISHING BOATS, MATSUSHIMA



ORIENTAL WHALING CO., LTD.: TYPE OF THE COMPANY'S WHALING VESSEL, SHOWING THE HARPOON GUN IN THE BOWS—
FIRING THE HARPOON GUN—ONE OF THE COMPANY'S STEAMERS



PICKING SEAWEED—CULTIVATED SEAWEED AT OMORI, NEAR TOKYO—A SEAWEED MARKET—DRYING EDIBLE SEAWEED

original capital was Yen 2,100,000 and the company then possessed eighteen whaling ships, and it also had two chartered ships. The company also purchased the interests of the Tokai Fishery and Pacific Fishery Companies, and in April, 1916, it further extended its control of the whaling industry by buying out the Kii Marine Products Co., the Nagato Whaling Co., the Dai-Nippon Marine Products Co., and the Naigai Marine Products Co., and increased the capital to Yen 3,000,000, fully paid up. The fleet now numbers twenty-four whaling ships, and the sphere of operations extends over the entire coast of Japan, Formosa, Saghalien, Kuerile Islands, Kwantung Province, and even to Tsingtao. Thus, viewed from the strength of its capital, the number of ships that it owns, and the extent of waters in which it operates, the Oriental Whaling Co., Ltd., may be considered one of the largest whale-fishing concerns in the world. The table on the next page shows the assets of the company for three business periods.

In none of these periods is any remarkable increase to be found, except in the third

column, and this increase is due to the purchase of the four companies, as stated. Otherwise the slow increase means that the company is steadily writing off the value of



THE CAPSTAN IN USE TO HAUL IN FISHING JUNKS

its property at the rate of Yen 110,000 per annum. The amount already paid back from fixed capital amounts to Yen 750,000. In the company's first business period (covering a year's operations), there was placed to reserve Yen 181,544, and dividends and bonus amounting to Yen 332,000 were paid. For the year ended January 31, 1917, Yen 340,862 was placed to reserve and dividends, and bonus totalling Yen 376,210 were paid. From the commencement of the twelfth period, which began on February 1, 1917, there was a noticeable improvement in general conditions. The company employed twenty-three whaling vessels and eight transports in the whaling in Miyagi, Wakayama, Kochi, Miyazaki, Nagasaki, and Kagoshima Prefectures, Korea, and Kwantung. From the rise in the price of whale oil the concern is realising a fairly large profit. What the increase in the price means may be seen from the statement that in its tenth business period the Oriental Whaling Co., Ltd., had a gross revenue of Yen 1,360,000, of which only Yen 260,000 came from the sale of whale oil, but in the eleventh

period, out of a gross revenue of Yen 1,960,000 whale oil yielded the handsome figure of Yen 710,000. In view of this development the company is now giving particular attention to the oil-production side of the industry, and it is expected that the output will be increased by from 30,000 to 40,000 cases per annum, bringing the company's total production of whale oil up to 130,000 cases per annum. Taking the price at Yen 10 per case, it is expected that the revenue from this source will almost cover the entire annual expenditure of the company. As all other products of whale fishing have increased in value by at least 20 per cent, and more often by 50 per cent, the directors naturally anticipate an extraordinarily successful future for the company. The development of the business side of the Oriental Whaling Co., Ltd., is shown in the accompanying table.

The catch of whales is likely to be considerably increased as the company has started operations in new waters around Korea and Skikotan Island, as well as in the coastal waters of Kii Province. A refining factory



FISHERMAN'S HOME, OHARA, KAZUSA PROVINCE

| BUSINESS | JAN. 31, 1915 | JAN. 31, 1916 | JAN. 31, 1917 |
|---------------------|---------------------|---------------------|---------------------|
| | Yen | Yen | Yen |
| Ships..... | 1,273,401.11 | 1,231,839.35 | 1,790,285.25 |
| Buildings..... | 278,817.34 | 275,437.60 | 304,201.73 |
| Machinery, etc..... | 254,772.78 | 249,104.85 | 284,917.37 |
| Land..... | 153,838.43 | 153,920.01 | 154,429.36 |
| <i>Totals.....</i> | <i>1,960,829.66</i> | <i>1,910,301.81</i> | <i>2,533,833.71</i> |

is to be started in the near future, and a chemical investigation is now proceeding with a view to establishing the following secondary productive undertakings: To obtain adolinalin from the whale kidneys; to

obtain valuable chemicals from the under part of whale bodies; to manufacture dyes-stuffs from whale blood; and to utilise the retitin. This investigation will also cover many other questions of the more thorough

use of whale products for commercial purposes. At present the Oriental Whaling Co., Ltd., is selling whale oil, salted flesh, whale flesh for fertilisers, whale beard, whale bone and muscle, and other products. In September, 1917, the company, through its President, Mr. J. Oka, petitioned the Imperial Government to give it special protection in its operations, and to eliminate competition with other concerns, the grounds of the request being that the industry has now become a national one through the absorption of so many companies and the regulation of the fisheries.

The head office of the Oriental Whaling Co., Ltd., is at No. 14 Kawaguchi-cho, Nishi-ku, Osaka.

| YEAR | WHALES CAUGHT | NET PROFIT, YEN | DIVIDEND, PER CENT |
|------|---------------|-----------------|-------------------------------------|
| 1909 | 897 | 514,000 | 15 |
| 1910 | 898 | 474,000 | 15 |
| 1911 | 937 | 415,000 | 10 |
| 1912 | 824 | 412,000 | 10 (first half) 12 (second half) |
| 1913 | 978 | 491,000 | 12 |
| 1914 | 952 | 412,000 | 12 |
| 1915 | 1,083 | 441,000 | 12 |
| 1916 | 1,261 | 717,000 | 12 |



TOKYO GENERAL DEPARTMENT OF JUSTICE

XXI. CONSTITUTION AND LAW OF JAPAN

By J. E. de BECKER, LL. B., D. C. L.

BASES OF JAPANESE LAW—CONSTITUTION—CODES—CIVIL CODE—CIVIL PROCEDURE—COMMERCIAL CODE—CRIMINAL CODE—CODE OF CRIMINAL PROCEDURE—CIVIL LAW IN GENERAL—CRIMINAL LAW—THE JUDICIARY

THE original foundation of law in Japan may be traced back to the national patriarchal system, which was based on the family as a unit, and on ancestor-worship. It consisted in those far-off times of little more than custom hardened into precedent; but subsequent to the seventh century, and up to the Imperial Restoration in 1868, the Chinese legal system was adopted and elaborate criminal and civil laws were enacted. All these laws, however, were extremely arbitrary, and were simply made for the convenience and protection of the governing classes, quite regardless of the welfare of the people at large or the claims of justice and fair-play. The tyrannous methods of the Tokugawa government had become so unbearable, and its political system so rotten, that it only survived the shock of foreign intercourse for a few years. On March 31, 1854, Japan's first treaty with America was signed, but it provided—like all the older treaties—for the establishment of extraterritoriality, which granted the exemption of foreigners from the jurisdiction of the Japanese tribunals and the right to set up their own courts in Japan. The "tacitly assumed basis" of these old treaties was "the unequal status

of the two contracting parties,—civilised white men on the one hand, Japan but just emerging from Asiatic semi-barbarism on the other"; and, indeed, the position was actually such that it would have been positively criminal for the Foreign Powers to have placed their nationals at the mercy of the ignorant, untrained, brutal Japanese judges of these early days, when the grossest forms of torture were freely employed as officially recognised part and parcel of judicial proceedings. In 1867 the Restoration of the Emperor took place, the feudal system gradually was broken up, and in 1871 a centralised bureaucracy was established. It then became clear that the hitherto existing legal system was out of date, and entirely unsuited to the changed circumstances of the time. Japanese statesmen began to recognise that Japan could never hope for admittance to the comity of civilised nations unless radical reforms were instituted, and that the abolition of extraterritoriality would be impossible until the Treaty Powers were satisfied that the Japanese Empire was equipped with a legal system of which those Powers approved. A Judicial Department was established and the legislative activity of the Government resulted in the

production of a number of codes, the provisions of which were largely borrowed from French and German law. Finally, to cut a long story short, Japan, by the recognition of her new codes, obtained the abolition of extraterritoriality, and the country is now more or less committed to the principle of enacting laws on bases and usages approximating the average European standard.

CONSTITUTION

THE basic law of the State is found in the Constitution and the Imperial House Law. The former embodies regulations which form the fundamental organisation of the State, define the powers of the direct and immediate organs thereof, and determine the rights, privileges, and obligations of subjects; while the latter consists of organic regulations relating to the internal affairs of the Imperial House.

CODES

THE principal Codes of Japan are: (1) the Civil Code, (2) the Code of Civil Procedure, (3) the Commercial Code, (4) the Criminal Code and (5) the Code of Criminal Procedure, and these are supplemented by a host of auxiliary laws and

ordinances. All these codes have been translated into English by the writer of this article.

CIVIL CODE

THE Civil Code (which was promulgated on April 27, 1896, and enforced on July 16, 1898) is a very creditable piece of work, based on Roman law. It consists of five books arranged in the following sequence: (1) General Provisions, (2) Real Rights, (3) Obligations, (4) Relatives, and (5) Succession. The provisions of the first three books follow Continental precedents very closely, but the last two books take into greater account the existing fabric of Japanese society, which is based on the family as the social unit. ("Annotated Civil Code of Japan" by Dr. J. E. de Becker).

CIVIL PROCEDURE

THE Code of Civil Procedure (which was promulgated on April 21, 1890, and enforced on April 1, 1891) is a law governing the formalities laid down for obtaining remedies from the State for encroachments upon private rights. It needs radical revision to bring it up to date. It lacks in completeness in many essential points, and one of its great faults is inflexibility, the judges being bound hand and foot by its rigid provisions.

COMMERCIAL CODE

THE Commercial Code (which was promulgated on March 9, 1899, and enforced on June 16, 1899) contains provisions relating to commerce, such as partake of the nature of private law. It is divided into five books, *viz.*: (1) General Provisions, (2) Companies, (3) Commercial Transactions, (4) Bills, and (5) Commerce by Sea. The code itself is a good one so far as it goes, but its draftsmen lacked broadness of vision. While it may serve the purpose of petty dealers, it is not sufficiently flexible to suit the needs of large traders, and requires considerable amendment to bring it into line with commercial law and practice as understood and recognised in business circles in Europe and America.

CRIMINAL CODE

THE Criminal Code (which was promulgated on April 24, 1907, and enforced on October 1, 1908) is practically a "hash-up" of the various European codes. It has been called by one of the former Judges of the Supreme Court, "the worst criminal code in the world," but, on the average, it is neither better nor worse than its Occidental prototypes. It is divided into forty chapters, and provides penalties for various offences, ranging from death to simple fine. Acts done to avert imminent danger, or in justifiable defence, are not punishable, and first

offenders may, under certain conditions, escape actual imprisonment by virtue of provisions to that effect. The code recognises amnesty, pardon, prescription, and liberation on tickets-of-leave.

CODE OF CRIMINAL PROCEDURE

THE Code of Criminal Procedure (which was promulgated on October 7, 1890, and enforced on November 1, 1890) is a formal public law containing provisions with which the Public Procurators, accused persons, etc., must comply in regard to any dispute about the application of law when the State enforces, or endeavours to enforce, its penal power against alleged offenders under the Criminal Code. This code constitutes a danger to the community, and contains very few provisions calculated adequately to guard the interests of the accused against abuse of power.

CIVIL LAW IN GENERAL

The Judicial System.—The Japanese Courts consist of (1) Local Courts (*Ku-Saibansho*), (2) District Courts (*Chiho-Saibansho*), (3) Courts of Appeal (*Koso-In*), and (4) the Supreme Court (*Daishin-In*). The Local Courts are held by single judges; District Courts and Courts of Appeal are collegiate courts, divided into several divisions, each consisting of three judges; and the Supreme Court is a collegiate court, also divided into divisions, in each of which five judges sit. All the courts have both civil and criminal jurisdiction, but the scope of jurisdiction possessed by the various classes is defined by law. In addition to the ordinary courts there is one called the Court of Administrative Litigation (*Gyosei-Saibansho*), which tries actions brought by the injured party when the right of an individual is injured by an illegal administrative disposition.

Actions.—(1) *Forum.* The place where an action may be brought against a person is the place of his domicile. The court of the general forum has jurisdiction over all actions brought against such person, unless an exclusive forum is prescribed by law for a particular action. The general forum of a person having no domicile in Japan is the place of his residence, or, if that is not known, the place of his last domicile in Japan; but if he has a domicile in a foreign country, an action can be brought against him in such general forum only in case the right on which the action is based arose in Japan. A special forum is the place where some particular kind of action may be brought. The law prescribes certain special forums. By consent of the parties, an action may be brought in any court of first instance, except where an exclusive forum is prescribed by law, or where the right on which the action is based

is not a property right. Any right having a pecuniary value, or any claim to recover pecuniary damages, is included under the expression "property right."

(2) *Parties.*—A party may in any case conduct his action himself. If he does not choose to do so, he must be represented by a lawyer, except that before a local court, or if no lawyer is obtainable, a party may be represented by a relative or a servant; if no such person is obtainable, by any other competent person. A written power of attorney must be filed in the court. It must be certified by a notary or some other proper public officer, if the other party demands such certificate. A power of attorney authorises the representative to do all acts relating to the action except those bearing upon an appeal, a revision, appointment of a substitute, a compromise, or the renunciation or acknowledgment of the claim. If the power of attorney is to include those acts, they must be specified in it, and it is always advisable to make the instrument very comprehensive.

(3) *Security.*—A foreign plaintiff is required to give security for costs, except—

(a) When by treaty, or by the laws of the plaintiff's country, a Japanese in a similar case would not be required to give security.

(b) On a counter-claim.

(c) In the special proceedings based on bills of exchange, promissory notes and other kinds of documents.

If security to the amount fixed by the judge is not furnished within the time allowed, the action is deemed to have been discontinued. A foreigner who is unable to bear the costs of a lawsuit may, on application, obtain provisional dispensation from the payment of the costs and from the furnishing of security, provided that a Japanese enjoys the same right in the country of the applicant. If the applicant has a domicile or residence in Japan, he must produce a certificate from the head of the city, town, or village where he lives, or, if these officers can not give such certificate, from his Consul. Otherwise he must produce a certificate from the proper authorities of his country, which must be confirmed by a Consul of his country residing in Japan.

(4) *Service of Papers.*—Service of paper is made by the *Shittatsuri** or by post. It must be made on the party himself, or, if the action is conducted by a representative, on the latter. However, if a party has a "procurator,"† service on the procurator is

**Shittatsuri* is an executive officer attached to certain courts whose principal duty is the service of papers and the execution of judicial decrees.

†A "procurator" is a registered manager, holding power to represent, and sign for, a firm or company.

generally equivalent to service on the party himself. In the case of a commercial company or other juridical person, it is sufficient to make service upon some one of the managers. If a person has a residence or an office in a place, service on him in that place can be made only at such residence or office, unless he consents to service elsewhere. If the person to be served is absent from his residence, service may be made on any adult relative living in his house, or on his servant. If the person to be served is absent from his office, service may be made on a trade assistant found on the premises. If service can not be made in any of the above mentioned ways, it may be made by delivering the paper to the chief official of the city, town, or village where the service ought to be made, and also posting a written notice on the door of the residence and giving notice thereof to two neighbours. If acceptance of the paper to be served is refused without any reasonable cause, it may be left at the place of service. Service can not be made by a *Shittatsuri* on Sunday, or any legal holiday, or at night, except by permission of the judge.

The person who serves a paper must make a written return of the service, which must be signed by the person to whom the paper is delivered. If the whereabouts of the person to be served is not known, service may be made by a public notification.

(5) *Procedure in Court*.—All proceedings are oral, unless it is otherwise provided by law. For persons unacquainted with the Japanese language an interpreter must be provided. In an action to which a foreigner is a party, the oral proceedings may be in a foreign language, if the officials and all other persons concerned are acquainted with such language, but no instance of actual application of this provision of the law has been known. An action is generally begun by filing in the court a written statement of claim, which must contain:

- (a) The designation of the parties and of the court;
- (b) A statement of the nature of the plaintiff's claim and of the ground on which it is based;
- (c) A prayer for relief;
- (d) A statement of the facts of the case;
- (e) A statement of the mode in which the plaintiff's allegations are to be proved;
- (f) The signature and name-stamp of the plaintiff;
- (g) The date.

In addition, the value of the subject of the controversy must be stated.

Between the service of the statement of claim and the trial a period of at least twenty days must intervene. The defendant

must file an answer to the statement of claim within two weeks after its service upon him. These periods may, in a proper case, be shortened or extended. The withdrawal of the action without the defendant's consent, or the putting of a dilatory plea by the defendant, including an objection to the competence of the court, is allowed only before the defendant begins his oral proceedings at the trial. Judgment must be given within seven days after the last oral proceedings (Art. 233). It must be pronounced orally in open court. The judge may at the same time, if he chooses to do so, state the reasons for his judgment. If a party does not appear at the time fixed for a trial, judgment is given against him on the application of the other party. If it is the plaintiff who fails to appear, the action is dismissed. If the defendant makes default, a judgment on the merits is given against him pursuant to the statement of claim, if and in so far as the facts alleged by the plaintiff, if proved, would justify such judgment. A judgment given on the non-appearance of a party is vacated as of course on an application made to the court within two weeks, but the party applying must pay costs. A second judgment given on the party's failure to appear is not so vacated. As to the procedure in Local Courts, the interval between the service of process and the trial need not be more than three days, or in cases of urgency twenty-four hours (Art. 377). On regular trial days the parties may appear before the judge and proceed with the action without any process. Instead of bringing an action, a party may apply to the court to summon the other party for the purpose of making an amicable settlement of the case.

(6) *Evidence*.—Evidence is generally taken before the court. Every person is bound to testify, except where it is otherwise provided by law. A witness who fails to appear must pay the costs arising therefrom and also a fine not exceeding Yen 20. If he fails to appear a second time, the judge may order him to be brought to the court. A relative* of a party, a person under his guardianship, his servant, or a person living in his house may refuse to testify, except in certain specified cases. The following persons may also refuse to testify:

- (a) Public officers in regard to facts which their official duty requires them to keep secret;
- (b) Priests, physicians, apothecaries, lawyers, notaries, etc., in regard to facts

*These include relatives by blood up to the sixth degree inclusive, husband and wife, and relatives by affinity up to the third degree inclusive.



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confided to them by reason of their position;

(c) Any person as to questions the answer to which would disgrace himself, a relative or his servant, or a person living in his house, or would cause pecuniary damage to himself, or to such a person.

A party may object to a witness if he is a relative or servant of the other party, or lives in the same house with him. A witness must affirm that he will speak the truth and will not conceal or add anything. Perjury can be punished as a crime. A witness who refuses to affirm is deemed to refuse to testify. The parties are not allowed to put questions direct to a witness, but may request the president of the court to do so. If the president refuses to put the question, the court decides whether he shall do it. Hearsay evidence, and what would be considered in America irrelevant testimony, is freely admitted. If after all the evidence produced by the parties has been taken it seems to the court to be insufficient, the court may order the examination of the parties.

(7) *Appeal, Revision, and Complaint*.—An appeal lies against a judgment rendered in first instance by a District Court or a Local Court. It must be taken within one month from the service of the judgment. Proceedings before the Court of Appeal are oral, and new allegations of facts and



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new evidence may be introduced. Revision applies to judgments rendered in the second instance by a District Court or a Court of Appeal. It is only for errors in law. The time for revision is the same as for appeal. Complaint can be made against any ruling or order of the court, other than a judgment, by which an application relating to the proceedings is refused, and in such other cases as are prescribed by law. A decision on a complaint is generally made without oral proceedings. No period is fixed for a complaint except that in certain cases an immediate complaint is provided for, which must be made within one week from the service of the order or ruling.

(8) *Summary Proceedings*.—When a claim is for a fixed sum of money, or for the prestation of a fixed quantity of other fungible things,* or of securities, the creditor, instead of bringing an action, may apply to the Local Court of the general forum of the debtor, or, if the claim is secured by a lien on an immovable of the real forum, to make an "order of payment" against the debtor. The latter may object to this order within two weeks after it is served upon him, or at any time before an order of execution is made. If he does not do so, an order is made for the execution of the order of payment.

(9) *Execution*.—As a general rule execution is granted on a judgment which is no longer subject to appeal or revision, and also on certain orders of court, on com-

promises made in court, and on notarial instruments for the payment of a fixed sum of money or the prestation of a fixed quantity of fungible things or of securities, provided it is so expressly stipulated in the instrument. In certain cases of urgency, or in any case if the plaintiff gives security, a judgment may be on application at once declared provisionally executory. It may then be executed immediately, although the time for appeal or revision has not elapsed. In certain cases enumerated in Art. 501 of the Code of Civil Procedure judgments are declared provisionally executory without any application on the part of the creditor. Execution is generally carried out by the *Shittatsuri*. It can not be effected at night, or on Sunday, or on a legal holiday, except by the express permission of the court. Necessaries of life are exempt from execution. What these are, is specified in Art. 570 of the Code of Civil Procedure. Movables seized on execution can not, as a general rule, be sold until one week after seizure. The sale is by public auction, but securities which are listed on the Stock Exchange are sold by private sale at the quotation of the day. Execution on an obligation in favour of the debtor against a third person is made by an order of the court forbidding the third person to perform to the debtor, and either transferring the obligation itself to the creditor or authorizing him to enforce it for his own benefit. If an execution is made on an obligation which is secured by mortgage, the fact must be registered. The income of a public officer, a priest or clergyman, teacher, workman, labourer, and

servant is exempt from execution, unless it exceeds Yen 300 yearly, in which case half of the excess can be taken. Execution against immovables is either by a sale at auction or by sequestration. The fact of the execution must be entered on the Register. A sale is allowed only if it is probable that a surplus will remain after deducting the value of all real rights and other charges prior to the claim of the execution creditor, unless the latter offers to purchase the immovable at higher price and gives security therefor. This sale is made by a *Shittatsuri*. On demand of any person interested, a bidder must give security, to the amount of one-tenth of his bid, by a deposit of cash or equivalent security. If the purchaser fails to pay the purchase money at the proper time, the court must order a re-sale, and the first purchaser is liable for the difference between the price obtained at the first and at the second sale, and for all expenses caused by his failure to pay. Instead of an auction, bids in writing may be ordered by the court.

A "provisional seizure"† may be made in a case where otherwise execution would be found impossible or substantially more difficult, *e.g.*, where there is reasonable ground to believe that the debtor is about to abscond to a foreign country. A "provisional disposition"‡ as to a matter in dispute may be made by the court if it appears that by the act of one of the parties the existing situation may be so changed that execution may become impossible or substantially more difficult, etc.

(10) *Arbitration*.—An agreement to arbitrate is void unless it refers to a specific matter and controversies arising therefrom. Thus, an agreement made beforehand to submit to arbitration all controversies which may arise out of a specific partnership contract would be quite valid, but an agreement between two persons to submit to arbitration controversies which might thereafter arise between them would be void.

Arrest.—Imprisonment for debt is unknown, and even in the case of a party disobeying the mandate of a Civil Court or leaving Japan to avoid civil process, personal arrest is not allowed. "Contempt of Court" (in the English and American sense) can not be dealt with by committal, the result being that certain court orders in the nature of injunctions (provisional dispositions) are rendered entirely nugatory in practice.

Bankruptcy.—There is an old bankruptcy law in force which regulates the bankruptcy of traders, but it has proved un-

* A fungible thing is a thing which is to be delivered in kind and not in species, as, for example, a certain quantity of rice when no specific rice is agreed upon.

† That is, "attachment," the Japanese word is *kari-sashiosae*.

‡ *Kari-shobun*.

satisfactory, and the Government is now drafting a new statute dealing with the matter. An adjudication may be made on the application of the debtor himself, or of any of his creditors; but if made by a creditor security must be lodged with the Court. Any trader who suspends payment must give notice to the Court within five days. Any gratuitous disposition made by the debtor after suspension of payment, or within thirty days previous thereto, is void as against the creditors. The law provides penalties for deceit and fraud in connection with bankruptcy, and contains provisions for respite, composition and rehabilitation under certain specific conditions. Domestic and foreign creditors are on an equal footing. Bankruptcy administration is conducted by an administrator chosen from a list of official administrators, subject, however, to the supervision of a commissioner appointed from among the judges of the court having jurisdiction.

Claims are presented and examined at a creditors' meeting called by the commissioner, and are deemed to be admitted if not challenged. If a claim is objected to, it is referred by the commissioner to the Bankruptcy Court, and decided upon at a regular sitting. Assets are gradually distributed among the creditors who have enforceable claims against the bankrupt subsisting when the proceedings are commenced. There are provisions for the protection of preferential claims.

Bills of Exchange, Promissory Notes, and Cheques.—The law of bills and notes, which is contained in the Commercial Code, is substantially the same as that of most European countries. As there is no law which forbids the making of a bill or note in any language, such instrument can be drawn up in foreign languages. A bill or note must contain an explicit denomination of itself as such. For instance, in Japanese the words "*Kawase-tegata*" or "*Yakusoku-tegata*," in English the words "bill of exchange" or "promissory note," in German the words "*Wechsel*" or "*Hand-schein*," in French the words "*Lettre de change*" or "*Billet de change*," or "*Promesse*" should be used. A mere written order for money, or a promise to pay money, which does not declare itself to be a bill or note is not sufficient. If anything is inserted in a bill or note in addition to the matters specified in the law as proper to be inserted, that is not regarded as forming a part of the instrument, although it may be binding as a contract between the immediate parties. This includes a stipulation for interest on the principal sum named in the bill. Therefore if interest is to be made payable, it

should be computed in advance and put in as a part of the principal sum. A bill or note for less than Yen 30 can not be made payable to bearer. Days of grace are not allowed. A bill payable at sight or on demand must be presented for payment within one year, unless a shorter time is specified in the instrument itself. Not only foreign bills, but all bills or notes which are dishonoured must be protested to enable the holder to have recourse against the prior parties.

A cheque can be made payable only at sight, and must be presented for payment within ten days from its date. If dishonoured, it may be protested, but it is sufficient instead of a formal protest for the bank to make a memorandum on the cheque of the fact and date of dishonour. On a crossed cheque the word "bank" (*ginko*) or some equivalent word (such as "& Co.") should be written. It is made an offence punishable by fine to draw a cheque on a bank where the drawer has neither a deposit nor a credit, even without any fraudulent intent. The formal validity of a bill drawn in a foreign country is determined according to the laws of such country.

Bills of Sale and Chattel Mortgages.—These are unknown, but conditional sales of specific property can be made effective in the case of immovables (real estate) by registration, and in the case of movables (personal property) by means of a notarially attested deed, which must be drawn by a Japanese notary in the Japanese language.

Companies.—There are four kinds of commercial companies, *viz.*: Ordinary partnerships (*gomeikwaisha*), limited partnerships (*goshi-kwaisha*), joint-stock companies (*kabushiki-kwaisha*), and joint-stock limited companies (*kabushiki-goshi-kwaisha*). Each of these (including an ordinary partnership) is a juridical or artificial person like a corporation, having for legal purposes a personality distinct from that of its members and being able as a person to hold property, buy, sell and contract, sue and be sued separately. A partnership or company created in Japan under the Commercial Code, and duly registered, becomes a Japanese juridical person distinct from its individual members, even though some, or all, of its members are foreigners. Such a partnership or company of foreigners has, as a Japanese juridical person, practically all the rights of a similar native organisation.

(A) Ordinary partnerships have two or more partners, each of whom is unlimitedly liable for the debts of the firm. Newly admitted partners become personally responsible for all the debts of the partnership, even for those which were contracted before

their admission, and a retiring partner continues liable for the debts of the firm contracted before he left it for two years calculated from the registration of his retirement (Commercial Code, Arts. 49 to 103). (B) Limited partnerships are made up of one or more active partners with unlimited liability and one or more partners with limited liability (Commercial Code, Arts. 104 to 118). (C) Joint-stock companies resemble the English joint-stock companies, and can not be formed by less than seven persons (Commercial Code, Arts. 119 to 234). In the absence of any registered restriction on his powers, each and every director is entitled to represent the company. (D) Joint-stock limited companies are limited partnerships in which the part of the capital contributed by the limited partners is represented by transferable shares, like the capital of a joint-stock company (Commercial Code, Arts. 225 to 254). (E) Foreign commercial companies. A foreign company is a company which is organised under the law of a foreign country. A company formed by foreigners in Japan under the Japanese law is, as already mentioned, a Japanese and not a foreign company, and enjoys nearly all the rights of a Japanese company, but it does not enjoy diplomatic protection. This should be borne in mind.

Foreign commercial companies are recognised by Japanese law and are allowed to do business in Japan, subject, however, to the power of the court to close the office of the company if its representative commits, in the course of its business, "any act contrary to public welfare or to good morals." A foreign commercial company may even have its principal office in Japan, but in that case it must comply with all the requirements which the law imposes upon Japanese companies. If, however, it only establishes a branch office here, it must appoint a representative, who will be deemed to possess full and unrestricted power to act for the company. For certain purposes, that branch office of a foreign company which is first established in Japan is treated as its principal office. A foreign company must make the same registrations as are required to be made by a Japanese company of the same or a similar kind. In making an application to register a foreign commercial company, the name and domicile of the representative of the branch office must be inserted in the application, and the following documents annexed:

- (a) A document sufficiently showing that a principal office exists;
- (b) A document showing the character of the representative as such;

(c) The company contract or a document sufficient to show the nature of the company.

The above documents must be certified by the proper authorities of the country to which the foreign company belongs, or by a consul of such country residing in Japan (Commercial Code, Arts. 255 to 260 and special laws).

Copyright.—By the revised law enforced since 1910, and based on the resolution of the International Copyright Convention held at Berne in 1908, the protection covered by the new legislative act has been considerably enlarged in scope. The law no longer requires the registration of copyright merely for the purpose of protecting it against piracy, but registration is required when copyright is to be used as an object of pledge, and generally as an object of market value. The fee is Yen 10 for a book, Sen 50 (25 cents) for a newspaper or periodical, and Sen 45 (22½ cents) for a drama or photograph. A Copyright Convention exists between Japan and the United States.

Descent and Succession.—The family law of Japan and the law of succession as set forth in Books IV and V of the Civil Code differ from the other parts of the code in being mainly of native origin. They are founded upon and adapted to the peculiar conditions of society in Japan. In accordance with the general principles of international law which obtain among European nations, the Government of Japan has, for the most part, exempted foreigners from the operation of its peculiar family law and left them to be governed by the laws of their own nationalities, which, however, are of course to be administered and applied by the Japanese courts, except as otherwise provided by treaty. If a person belongs to a country the law of which is different according to locality, he is governed by the law of the locality to which he belongs. Thus an American citizen remains, as to family and succession matters, under the law of his particular home State. Succession to property at death is determined according to the law of the country of the decedent. This applies to the question as to who is to receive the property. The appointment and the powers of an executor would be determined by Japanese law, unless otherwise provided by treaty. By Japanese law the property goes to the heirs directly, and the executor, if there is one, is a mere manager and does not become the owner of the property. There is no process by which an executor can obtain a formal discharge from the Court upon the completion of his duties or upon his resignation.

Divorce.—The causes for which divorce

may be granted are determined by the law of the husband's nationality, except that a Japanese court can not decree a divorce for any cause which is not deemed sufficient by the Japanese law. Application for divorce should be lodged within one year from the time when the party entitled to sue had knowledge of the facts forming the cause for divorce. Proof of the foreign law must be furnished to the Court. Adul-

tery of the male is not a ground for divorce unless coupled with cruelty.

Marriages.—The capacity of parties to a marriage, and such matters as the consent



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tery of the male is not a ground for divorce unless coupled with cruelty.

Land.—The distinction between real and personal property, which plays so important a part in English and American law, has no place in the law of Japan, which latter, in this respect, resembles the laws of most continental European countries. A "real" right in the Japanese law means simply a right in a thing, as distinguished from contract rights and rights arising from quasi-contracts and from wrongs. The rules for all kinds of property are the same, except in so far as the peculiar nature of immovable things creates a necessity for special rules. Contrary to the Anglo-American rule, buildings and fixtures, and in many cases even trees and plants, upon land are not considered for legal purposes as forming part of the land, and a tenant who has attached such things to the land may usually take them away. Foreigners are not entitled to own and hold land, but they may acquire the ownership of buildings. They can acquire long building leases (period unlimited) called "Superficies" (Civ. Code, Arts. 265 to 269), which are valuable properties if registered. At the end of a lease the houses on the land do not vest in the landlord.

Limitations of Actions.—All rights of action are barred by lapse of time, but the periods of time vary considerably and can

not be specified in detail owing to want of space. Claims under the Civil Code are extinguished by prescription after the lapse of from five to twenty years; while claims under the Commercial Code are extinguished in from one to five years according to class. Prescription is recognised in all criminal matters also.

Marriages.—The capacity of parties to a marriage, and such matters as the consent of parents or guardians are governed by the law of the parties' own country. As to the form and manner of the celebration of a marriage, it is sufficient if the law of the place of the marriage is complied with. Therefore, as far as the law of Japan goes, foreigners who marry here may follow the forms of their own law or of Japanese law; but care must be taken to examine the law of their own country and of the various consular regulations in regard to this matter, as otherwise the marriage may be valid in Japan and yet not be recognised at home or in the consulate having jurisdiction. The effect of a marriage—that is, the relations created by it between husband and wife and the rights of each in the other's property—is determined according to the law of the husband's nationality, except in the case where a foreigner marries a Japanese woman who is the head of a house and enters her house, or marries the daughter of a Japanese and is adopted by the father. For instance, if an Englishman marries a Japanese woman, his rights in his wife and her property are determined by the English and not by the Japanese law.

Matrimonial Property.—According to Art. 795 of the Civil Code, if aliens who have made an arrangement as to their matrimonial property different from the legal arrangement of the country to which the husband belonged at the time of the marriage, acquire a domicile

in Japan, they must have such arrangement registered within one year, or else the contract can not be set up against the successors of the husband or wife or against third persons. The registration of a contract relating to matrimonial property is made on the application of all the parties to the contract. In the case of foreign writing, a Japanese translation must be annexed. In the case of a foreigner marrying in Japan and desiring to make a special arrangement *re* matrimonial property, the contract embodying the same must be registered prior to the marriage. If a special arrangement is not made, then the matrimonial property is governed by the law of the country to which the husband belongs at the time of the marriage.

Mining.—Individual foreigners can not engage in mining, but a company formed under Japanese law by foreigners can do so. Generally speaking, the Japanese Mining Law is satisfactory.

Minors.—Majority is attained at the age of full twenty years. In the case of foreigners, the age of majority follows the laws of their respective home countries.

Mortgages.—Foreigners are entitled to acquire mortgages on immovables upon the same conditions as Japanese subjects. A mortgage (*teiko-ken*) is an hypothecation of land or buildings to secure the performance of an obligation. Contrary to the English rule, but in accordance with the laws of most European countries and of some of the American States, the mortgagee does not become the owner of the mortgaged property and has no right of possession. A mortgage is created by the written agreement of the parties, and in order to render it valid against third persons it must be registered. A separate column is set apart in the Registry Book for mortgages. These are registered in the order of the times of the applications for their registration, and rank among themselves according to the order of their registration. An unregistered mortgage can not be enforced against the holder of a subsequently registered one, though it may be good between the parties. A superficies or emphyteusis may be mortgaged; so may buildings. A mortgage of land or buildings includes fixtures attached to them. A mortgage of land, however, does not cover the buildings on it, unless they are specified in the agreement. The mortgage does not include the fruits of the land until a judicial seizure has been made under the mortgage. Movables can not be separately mortgaged, but only when they are attached to land or buildings as fixtures. Machinery, as under the English law, may be a fixture or not, according to its nature and the manner of

its attachment. A mortgage of machinery by itself is entirely invalid.

If the debt for which the mortgage is given is not paid at maturity, the mortgagee may bring an action for foreclosure. A strict foreclosure after the English fashion is not allowed, but the foreclosure is by a sale of the property made under an order of the Court. Out of the proceeds the debt and the costs of the foreclosure are paid, and the remaining proceeds, if any, go to the mortgagor or to the holders of junior liens. If the proceeds are insufficient to pay the debt, the debtor remains personally liable for the amount unpaid; and if he is himself the mortgagor, a judgment for the amount may be given against him in the same proceeding. The Civil Code says nothing about the insertion of a power of sale in a mortgage, although in case of pledge it is forbidden by Art. 349; but the courts have already upheld such a power. As between the parties the mortgage is extinguished by the discharge of the debt; but so long as it stands uncanceled upon the Register it is considered to exist in favour of any third person who acquires it in good faith, and such person may still enforce payment of it. Therefore it is advisable for the mortgagor, when he pays the debt, to make sure that the mortgage is cancelled on the Register.

Patents.—An applicant for a patent or a patentee who is not domiciled in Japan must appoint a representative domiciled in Japan.

A patent right is granted for a term of fifteen years from the day of the registration of the patent. The term, however, can be extended for a period of from three to ten years. A patent right can be assigned or pledged, but such assignment or pledge can only be set up against third persons when registered. If a person who has applied for a patent in a country belonging to the International Union for the Protection of Industrial Property applies in Japan within twelve months thereafter for a patent on the same invention, such latter application has the same effect as if it had been made at the time of the former application. When an application for a patent is refused, the applicant may within sixty days demand a re-examination by another examiner, stating grounds for such demand. If the desired patent is again refused, he is entitled to a hearing before the Patent Office, if he should apply for it within sixty days. From a decision of the Patent Office, an appeal lies to the Supreme Court on questions of law only.

A patent may be revoked by the Director of the Patent Office: (1) If the patentee does not, for three years or more from the

day of the registration of his patent, properly use the same, or, if he suspends the use thereof for three years or more. (2) If the patentee fails to pay any fee on his patent when it falls due.

Fees are payable on a patent as follows:

| | Yen |
|--|-----|
| 1. Application for a patent..... | 5 |
| 1st-3rd years payable at once at time of registration..... | 20 |
| 4th-6th years payable annually..... | 10 |
| 7th-9th years payable annually..... | 15 |
| 2. Patent fee. | |
| 10th-12th years payable annually.... | 20 |
| 13th-15th years payable annually.... | 25 |
| 3. Patent fee for extended term. | |
| 1st-3rd years payable at once at time of registration..... | 150 |
| 4th-6th years payable annually..... | 70 |
| 7th-10th..... | 100 |

Pledge.—A pledge (*shichi-ken*) is where property is put in the possession of the creditor to hold as collateral security for his claim. Movables, immovables, or rights may be pledged. The thing pledged must be actually delivered into the possession of the pledgee. It can not be kept for him by the pledgor as his agent or bailee. There is no method by which security can be given on movables without actual delivery, except when they are stored in a public warehouse or are in course of carriage, and a warehouse receipt or bill of lading has been given for them. The practice in England and America of hypothecating chattels by a registered bill of sale is not admitted in Japanese law.

Prize Law.—Proceedings in prize are regulated by Imperial Ordinance No. 149 of the 27th year of Meiji (1894) amended by Imperial Ordinance No. 188 of the 3rd year of Taisho (1914).

Seals.—In Japan every person possesses—or is supposed to possess—a seal, which he affixes to important papers. Most persons have two seals, one known as a *jitsu-in* (true seal) and the other as a *mitome-in* (initialling seal). The *jitsu-in* is registered with the local Government office, and a certificate of an impression thereof can be procured from the mayor for a trifling fee, on the application of the owner whenever necessity arises to prove its authenticity. The *mitome-in* is used for formal acts, and is generally not registered, but it is equally binding on the user. Seals are only a relic of a past age when few persons could write their names. In these modern times the omission to seal a document after signature does not invalidate the instrument, unless in a case where sealing is a formal and specific statutory requirement. The question is one of personal identity

pure and simple. The common seal of a corporation is unknown in Japan in the Anglo-American sense. While corporations do actually adopt and use seals for purposes of advertisement and convenience, the affixing of a corporation seal has no special signification. The corporation does not "speak through its seal," but through the signature of its directors. The name of the corporation is first written down, after which each of the directors acting signs his own name and affixes his own seal. Corporations do not possess an official secretary, president, or treasurer recognised by law. So far as foreigners are concerned, where under any law or regulation a Japanese subject must sign his name and affix his name-stamp, or sign his name or affix his name-stamp to a document, it is sufficient for a foreigner to sign only. The old foreign custom of using wafer-seals on documents in Japan is entirely superfluous unless such papers are intended for subsequent use abroad.

Trade-marks.—Trade-marks are regulated by Law No. 25 of April 2, 1909. The exclusive right is granted for a term of twenty years from the day of registration, but it can be renewed. A trade-mark can not be assigned except in connection with the business for the purposes for which it is used. Such assignment can only be set up against third persons when duly registered.

If several applications are made for the registration of the same trade-mark, the first one takes precedence. If they are made at the same time, none of them is granted. If a person who has applied for the registration of a trade-mark in a country belonging to the International Union for the Protection of Industrial Property applies in Japan within four months thereafter for the registration of the same trade-mark, such latter application has the same effect as if it had been made at the time of the former application. The fees payable are: Yen 3 upon application, Yen 20 upon registration, Yen 10 on assignment, Yen 2 upon application for renewal, Yen 20 for renewal, Yen 3 upon application for re-examination, and Yen 12 upon application for decision of the Patent Office.

Trusts.—Trusts as such are unknown in Japan, but in order to meet the demand for a system for the protection of debenture-holders, a law known as "The Secured Debentures Trust Law" (No. 52 of 1905) has been enacted in connection with "The Factory Mortgage Law" (No. 54 of 1905) and "The Railway Mortgage Law" (No. 53 of 1905). Under its provisions it is now possible to mortgage various kinds of property, both movable and immovable, including (*in-*

ter-alia) pledges of movable properties, pledges of claims supported by documentary evidence, mortgages of immovable properties, of ships, railways, tramways, factories (including fittings, machinery, tools, and accessories), mining properties, rights of individual ownership, etc. The *modus operandi* is to create "Estates" or Foundations" composed of certain property, and to register a mortgage on the same to a trust company for the benefit of the debenture-holders. The trust only extends to specific property listed in the inventories, and no words inserted in the deed can create a floating charge. An agreement can be made to add after-acquired property to the mortgaged "estate," but until such property is specifically added and registered, the bondholders to not acquire any extra security. A "floating charge" is unknown in Japanese law, and is opposed to its fundamental principles.

War Legislation.—An Imperial Ordinance (No. 41 of April 23, 1917) has been promulgated forbidding transactions with enemy subjects and States. It provides that no unlicensed transactions may be made or entered into with or for the benefit of: (1) Enemy countries (the German Empire and other Powers engaged in hostile acts against the Allied Powers); (2) Enemy subjects or juridical persons; (3) Persons who are domiciled in enemy territory, or who make it their principal object to carry on businesses within enemy territory; (4) Businesses which have been publicly listed by the Government as being under the management, either wholly or partly, of enemy persons, or as being under enemy influence. The penalties imposed are (1) a fine not exceeding Yen 200 or (2) penal servitude for a term not exceeding one year. The ordinance is effective throughout the Empire, and wherever Japan enjoys extra territorial jurisdiction.

Enemy subjects in Japan receive remarkably liberal treatment in regard to freedom of residence, etc., but their incomes and disbursements are controlled by the Government, and any indiscreet conduct leads to deportation. No enemy subjects are now allowed to land in Japan. No moratorium has been decreed. A law has been passed dealing with the control and utilisation of industrial property rights owned by enemy subjects. The tendency is to make the regulations for the control of enemy subjects stricter as time goes on.

Wills.—A person who has completed his fifteenth year can make a will. A will can be made (1) by a holograph document, (2) by public (notarially certified) document, or (3) by a secret document; but exceptional

forms are provided for in cases of urgency (Civ. Code, Arts. 1050 to 1086). Wills must not contravene provisions *re* legal portions (lineal descendant who is the legal heir to a house, 50 per cent; any other heir to a house, 33 $\frac{1}{3}$ per cent). As regards foreigners, the existence and the effect of a will are governed by the law of the nationality of the testator. As to the form and manner of making a will, the law of the place where it is made may be followed. Apparently, therefore, so far as the form is concerned, a foreigner may make his will in the manner prescribed by his own law or by the law of Japan; but care must be exercised in regard to form when disposing of property situated abroad.

CRIMINAL LAW

(1) *Arrest and Criminal Procedure.*—Offences are divided by the Japanese law into three classes, which may be conveniently distinguished as crimes, misdemeanours, and petty offences. A police officer may arrest a person without a warrant and may even enter a private house for that purpose, in the following cases:

(a) If the person arrested is in the act of committing an offence or has just committed one;

(b) If other persons are in actual pursuit of him as an offender;

(c) If dangerous weapons or stolen goods or other indicia of an offence having been committed are found in his possession;

(d) If the assistance of the officer is called for by the head of a house in case of an offence committed in the house.

For a petty offence the officer can only take the name and address of the offender in order to make a complaint against him; except that he may arrest him if his name or address appear to be uncertain, or there is danger that he will run away. An arrest may also be made in a similar case by a private person, if the offence is a serious one punishable by imprisonment or severer punishment. A person who is arrested without a warrant must be taken immediately to a police office, where the officer in charge must inquire into the facts and draw up a protocol of the result of his inquiry. The person arrested can not be forced to answer any question, nor can any violence be used against his person. Any ill-treatment of the accused person would amount to a crime for which the officer would be punishable.

If the offence is a petty one, punishable only by a fine of not more than Yen 20, or by detention for not more than thirty days, the officer in charge of the station may dispose of the case summarily. His decision,

however, is subject to review by the court. If the defendant desires to bring the matter before the court, he must give security for his appearance, which, in case of a fine, may be done by the deposit of the amount of the fine. If the offence is too serious to be dealt with summarily, the case goes into the hands of the public procurator, the defendant being either detained or, if the charge is not of great importance, released for the time being without giving bail. If he is detained, he is to be brought before an examining judge, by whom he may be admitted to bail. Under Japanese law, prosecutions for criminal offences are not conducted by private persons but by the public procurator, whose official duty is to prosecute for every offence of which he has knowledge. A separate procurator is attached to each criminal court.

When the public procurator is informed of the commission of an offence, he takes one of two courses. If the offence is a misdemeanour, he may himself make the necessary investigation, and if he finds sufficient cause for doing so, at once institute a criminal prosecution. If the offence is a crime, he must apply to an examining judge for a preliminary examination; and he may do so, if he thinks fit, in the case of a misdemeanour. The preliminary examination is an investigation of the entire case, including the examination of the defendant himself, the hearing of witnesses and the taking of any other evidence for the purpose of ascertaining whether there is probable cause for holding the defendant for trial. Generally, the examining judge issues a summons to the defendant to appear for examination on an appointed day. If the summons is disobeyed, an attachment against his person is issued; but in certain cases specified by the law the judge is empowered to issue an attachment in the first place instead of a summons.

The first examination of a person arrested must take place within forty-eight hours of his arrest. But either at the preliminary examination or the trial he may refuse to answer any question which is put to him. After the examination he must either be set free or a warrant of detention must be made. No time limit is fixed by the law for the completion of the preliminary examination, so that it might extend over a long period, during which the accused person might be kept in confinement.

In case of the flight of an accused person no preliminary examination is held, but a warrant of detention is issued immediately, on which he may be arrested and detained for trial. In order to arrest a person against whom a warrant has been issued, any house or place where he is supposed to be may be

searched, but such a search can be made only in the daytime, except in a hotel or other place of public entertainment. The search is made by the police officer in the presence of the mayor of the town or village, or, if he is not available, in the presence of two neighbours. The judge may also order a search of the house of the accused person or of any place where there is reason to suppose that things important as evidence may be found. The accused person has a right to be present at the search, unless he is under detention. In the absence of the accused, a search must be made in the presence of relatives living in his house, or of the mayor. If on such a search any articles are found which will probably be important as evidence, they may be taken possession of by the public authorities. The judge may also require the officials of the post-office and of telegraphs and railways to deliver to him for inspection all letters, messages, and parcels directed to the accused person.

A defendant has no absolute right to bail, the allowance of bail being discretionary with the examining judge, but in practice the granting of bail is often delayed on the ground that the accused may destroy evidence, etc. Bail may be given by the deposit of money or satisfactory securities, or by a single bondsman who must be a person of sufficient pecuniary standing, residing within the jurisdiction of the court. Even after bail has been allowed, the judge may at any time, if he thinks it necessary to do so, revoke the allowance and order the defendant to be arrested. Instead of releasing the defendant on bail, the judge has power, if he thinks fit, to entrust the defendant to the custody of relatives or friends. If bail is refused, complaint may be made to the court, but the judges are usually guided in their decision by the views of the procurator.

The trial is not by jury, but is before three or five judges, or in petty cases before a single judge. Under present conditions in Japan this is probably a better tribunal than a jury would be so far as foreigners, at any rate, are concerned. The accused person must not be fettered during the trial. He is entitled to counsel, but must employ one of the counsel attached to the court in which he is tried, unless the court grants him permission to employ somebody else. The defendant may testify in his own behalf, and after the testimony of any witness has been given or any evidence adduced, he is to be allowed an opportunity to remark upon it. If the defendant does not understand the Japanese language, an interpreter must be provided by the court.

In the case of petty offences punishable only by a fine the defendant need not be present at the trial, but may be represented by an attorney. If he does not appear at all, judgment may be given against him by default. From the court of first instance an appeal can be taken on both the facts and the law; and any question of law in serious cases can be carried to the court of last resort. The time within which an appeal can be taken is very short, being only three or five days. There is no right of habeas corpus or anything exactly equivalent thereto. Administrative arrests, however, are not allowed, and the unlawful imprisonment of a person is—at least in theory—a serious crime. According to Japanese law, a person who is needed as a witness can not be detained beforehand to secure his appearance.

(2) *Domiciliary Visits*.—Besides the right to enter a private house in order to make an arrest for crime or to execute a search warrant, the police and sanitary officials have a right to visit private houses in the following cases:

(a) When a person is suffering from an infectious disease in a house, certain sanitary, police, and administrative officers may enter the place and take necessary measures for cleansing and disinfecting it. They may put the house under quarantine, or, if necessary, a whole street or block of houses. They also have power to require the removal of the sick person to a hospital, if they think it necessary.

(b) If it is reported that any person has an infectious disease, the police authorities may require him to appear at a police station for inspection, or may send a physician to his house to make the inspection, but a policeman who goes with the physician must remain outside the house.

(c) At certain intervals every house is visited by a police officer for the purpose of inquiring what persons are inmates of it, especially in regard to servants or guests. The officer has no right to enter the house against the will of the householder, but must make his inquiries at the door. Except as specially provided by law or regulation, a police officer has no right to enter a dwelling house.

(3) *Criminal Law Generally*.—The substantive law itself is neither worse nor better than that of most other countries, but the adjective law needs drastic revision. The system of criminal procedure is calculated to entail hardship and much waste of time. At the moment of writing there is a move-

ment on foot having for its object the better protection of accused persons, and it is reassuring to know that the Imperial Government is considering a reform in criminal procedure. Under the present system of preliminary examination, few guilty persons escape when once in the meshes of the law, but innocent people occasionally suffer by the process. Witnesses can only appear by consent of the judge, and are examined by him and not by the parties or their attorneys. Effective cross-examination is thus practically impossible.

The so-called "mise en secret," by which a person under examination could be put into solitary confinement, if the judge should consider it necessary in order to ascertain the truth, is abolished. A person

who has been arrested and is under examination may see other persons in the presence of an officer, and may send and receive letters and any other written communications after they have been examined by the judge conducting the preliminary examination or the public procurator. The judge may, however, if he thinks it necessary, isolate the cell in which the person under examination is confined, or may forbid intercourse with other persons or the sending or receiving of writings or other things, or may take possession of them.

In some respects the administration of the criminal law in Japan is certainly not what it should be, and accordingly it is hoped that the Government will early give its attention to necessary reforms. It is only fair to

add that the courts have shown themselves particularly careful in foreign criminal cases.

THE JUDICIARY

THE status of the judiciary is by no means satisfactory, the emoluments of its members being meagre, their official rank below what it should be, and their prospective pensions altogether too small. Notwithstanding the disadvantages under which they labour, it must be conceded that the judges are, on the whole, a high-minded and conscientious body of men, characterised by honesty and painstaking industry.

To sum up, Japan has accomplished a good deal in connection with the reform of her judicial system, but much remains to be done in order to make it reasonably perfect.





CAVES AT MATSUSHIMA TO WHICH THE PRIESTS OF BUDDHA RETIRED FOR STUDY MORE THAN 1,200 YEARS AGO

XXII. EDUCATION

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REMOTE BEGINNINGS AND EARLY DEVELOPMENT—EDUCATION IN THE TOKUGAWA ERA— INTRODUCTION OF MODERN EDUCATION—JAPAN'S EDUCATIONAL SYSTEM TO-DAY—OUTLAY ON EDUCATION

BEFORE the opening of Japan to the modern world the nation was, of course, without any system of secular education. Pre-Restoration Japan had witnessed no such steady evolution of great centres of learning as had marked the progress of pre-Reformation Europe. Indeed, education can scarcely be said to have attained a degree of development either so general or so effective as that of the later schools of Greece, not to say anything of its inferiority to Rome's improvement on her heritage of Hellenic culture. As among the ancient nations of Europe a youth bent upon satisfying his thirst for knowledge and intellectual achievement had to fit himself for a realisation of his ambitions, if not by what he could gain of experience and suggestion from the wandering sage or "the schools of the prophets," yet from the stern realities of life itself, so was it with the men of old Japan. Education, in so far as it had ceased to be a

conventional dabbling in Chinese classics or a mere mental abstraction of the idle and the pretentious, centred, as in early Greece, around a few great names; but these, unlike the Sophists of old, founded no schools, left no successors, and the pupils scattered with the decease of the master. In the realm of arts, crafts, and general industry it was in some measure otherwise, for here education and the secrets of artificial production often passed from master to pupil until craft became hereditary; which means that the education of early Japan was for the most part utilitarian both in spirit and practice.

As Rome from Greece and Egypt, so did Japan from China and Korea draw most of her intellectual inspiration. But Confucius and Mencius, who might have been to Japan what Socrates and Plato were to the pre-Christian world, produced only a stoicism that appealed to none but the stern dictators

of unreasoning loyalty, leaving the mass of the people to the crude superstitions of Shinto, the native religion; and so the nation was thrown back upon Buddhism for its "Moses and the prophets," the schools that the alien religion brought with it from India and China. This turned the mind of the Japanese to æsthetic vagaries tending largely to the grotesque, with a depreciation of the practical world and a failure to produce much character of the heroic mould. Buddhism by compromise ultimately united with Shinto to enslave the national mind in still more grovelling superstition, until men emulated the goblins of primitive or aberrant fancy, and felt themselves bound every way about by the guardian semi-human deities of ancestral days. Here and there appeared a brilliant scholar, a popular poet or minstrel, a Buddhist saint of high degree, but the masses remained untouched and dense. Education so far as it can be said to have existed, clung



(ABOVE) THE TAIMEI GAKKO, AN ORDINARY PRIMARY SCHOOL AT TOKYO—(BELOW) TOKYO HIGHER TECHNICAL SCHOOL—
THE SEISHIN JOGAKUIN, OR GIRLS' HIGH SCHOOL, TOKYO

to the skirts of princes and potentates about the changing capitals of the Empire, until in the twelfth century, with the rapid decline of imperial power, the rule of empire passed into the hands of the militarists, and education took refuge where it began, with the teachers of religion. It was thenceforth a thing of temples and monasteries as in mediæval Europe, but with little of the intellectual eminence displayed by the monastic schools of the West, until the ascendancy of the Tokugawa shoguns, when it once more began to receive the active support of the authorities, and schools of a kind commenced to flourish at the courts of the more prominent daimyo, like those of Satsuma, Mito, Owari, and Hizen, the present Imperial Universities having germinated from these feudal academies.

Thus in Japan, as in all other lands, education began only after the nation had passed through the struggle that resulted in the birth of an empire, and the people had begun to realise that they had done something worthy of thought. Adversity is as much the mother of intellectual and moral achievement as it is reputed to be of invention.

Japan had now reached a stage where her heroes were sufficiently conspicuous to be easily separated from their deeds and set up as ideals for the race. The nation was beginning to break away from the fatal prepossession that a man can only be what his ancestors have made him and it is the will of the gods that he have little to do with his destiny, though a great part of Japan still labours under this fatalism. Discovering, with the birth of knowledge, that nations, like men, are but what they make themselves, the leaders of Japan were no longer content to have life regulated by ancestral custom, but by thought, truth, and action. When education ceased to be a thing of family convention and superstitious scruples and became a definite necessity of service and choice, the citizen for the first time was given an opportunity to regulate his life by reason and conscience rather than by rigid ancestral rule. Education was no longer regarded as an ornament of the few, but an inalienable right of the many. Such, indeed, was the ideal with which the new Japan set out, but how far she has lived up to it, we shall now endeavour to examine.

REMOTE BEGINNINGS AND EARLY DEVELOPMENT

THE Japanese, no more than other races, could have sprung from barbarism at a bound. The early settlers on the islands, having come from the continent, doubtless carried with them some modicum of formal education, such as then existed in Korea and China. It is not, however, necessary to suppose that they were at first much concerned with education except in an ancestral sense. Nascent peoples must preserve their family or racial customs, which implies some notion of education. Primitive races always have some conception of religion, and religion always stands for education in some degree. The basis of Japanese religion was, and still is, ancestor worship, and the state of society it represented naturally recognised no social tie save that of blood. The aim of a primitive people is the satisfaction of immediate wants; and youth was no doubt taught the occupations of the race so as to take part in providing the necessities of life: food, clothing, shelter, protection from enemies, and the procreation of the tribe. Education in early Japan was, therefore, much too practical for formal

schools. It proceeded through the family and clan and involved a working knowledge of how to deal with Nature and everyday life, as well as to propitiate the Unseen. Youth for the most part blindly imitated age, as age did its ancestors, and life was as it always had been and always would be. The main duty of life was to "carry on" in the most primitive sense. Custom was the rule of living, and the right of individual development was not recognised. Ethical doctrines, so far as they existed, were prudential and sordid, and precept did not always appeal to the inner light in man. As education was chiefly utilitarian, on the one hand, and a sheer effort of memory on the other, it naturally did little for intellectual and moral development. These considerations it is essential to bear in mind, for it will be seen as we proceed that the underlying principles of Japanese education have not been able yet to rise above those primitive notions that retarded its progress from the outset, in spite of the outward adoption of modern modes and forms.

Nor can one wonder at this, since from its very inception Japanese education has been based on that of China, whence it sprang and drew its first ideals and inspiration. Chinese education, like the civilisation produced by it, has not changed a whit in three thousand years, no matter what waves of outward influence have at times ruffled its surface. Confucius, the greatest teacher of China, declared that Heaven had given man Nature to follow, and that his whole duty lay in imitating Nature. But by Nature he meant custom, or what has been agreed upon in the past. Thus virtue is knowledge and observance of fixed ideas and customs. The sum total of duty is loyalty of subject to sovereign, child to parent, and man to Nature. Of course if this is all there is to education, it must necessarily be non-progressive. In China only what proceeded from authority was of any importance and required any deference, a principle that still very much prevails in Japan. The early immigrants to Japan got away from this system as it obtained in China, and had nearly a thousand years of independent development, but communication with the continent was apparently more or less unbroken and the Yamato race did not proceed very far along instinctive lines before Chinese ideas began to reappear and impose themselves upon a race still primitive enough to be purely imitative.

The question as to when formal education commenced in Japan may be regarded as speculative as it is academic. The ancient records make mention of a set of Chinese classics presented to the Imperial Court of Yamato by the tripartate kingdom of Korea

in 270 A. D., or 284 as other records aver; but in such matters a discrepancy of ten or twenty years does not seem to be of great importance. We do not come down to authentic history until the sixth century, when Chinese and Hindu religion and civilisation began to take root in Japan. In the reign of the Emperor Mommu, 701 A. D., an ordinance relating to education was issued, establishing formal schools, of which history seems to make little or no subsequent mention. The Japanese boast of this as antedating the Educational Ordinance of Charlamagne by a hundred years, and Oxford University by nearly two centuries, but the facts as regards the system of education established by Charlamagne and King Alfred the Great are based on evidence much less mythical than the records on which Japanese educationists base their claims to antiquity. The Japanese themselves must admit that the schools thus early mentioned did not succeed in maintaining continuity, like Oxford and Cambridge and the great institutions of continental Europe. The educational system of ancient Japan, if it existed at all, must have been swept away and obliterated during the long ages of civil strife from the tenth to the fifteenth century. Through those dark centuries of bloodshed the only remnant of education was found in Buddhist monasteries and temples; and Buddhist priests, as at the beginning, came to be the only educators of the nation. They it was who brought books from China, invented a system of native writing, and taught the people of Japan how to read, for which some of them, like Kobodaishi, are to-day worshipped as gods. As early as 771 A. D. we have reference to books being printed from wooden blocks, also the work of the priests; but for the most part they were laboriously copied, as in Europe of the same period. Even then, education was confined to courtiers, priests, and the few warriors who cared for such diversions, though in the eighth and ninth centuries it is remarkable what a number of women authors appeared. The task of memorising Chinese ideographs was no doubt as much a drawback to ancient as it is to modern education in Japan, and for this reason a native syllabary was invented to assist in conveying the sounds of the alien characters and denoting the correct pronunciation of them; but the vast mass of the commonalty was even more untouched by education than it was in Europe. During the Nara period, from the eighth to the eleventh century, an imposing array of scholars, poets, and poetesses appeared around the Imperial Court, whose works are still read as ancient classics of the nation; yet in this as in less enlightened eras the

people were left in ignorance, poverty, and serfdom. That age of enlightenment among the upper classes of society, due to priestly culture from China, seems to have been almost obliterated by the succeeding centuries of civil war, when education fled with religion into the temples and monasteries.

EDUCATION IN THE TOKUGAWA ERA

With the return of peaceful days during the era of the Tokugawa shoguns, when the nation knew no war for two hundred and fifty years, education naturally revived, under the auspices of the Buddhist schools and the favour of the authorities. It was still anything but universal, however, and so far as women were concerned education did not exist at all. Nothing, indeed, is more remarkable than the contrast between the brilliant period of female authors in the Nara age and their utter absence in subsequent times. Who can say how much of greatness Japan lost by this total suppression and neglect of her womanhood intellectually? Surely no further proof is needed of the national deterioration that can be brought about by long periods of bloody strife! The education of the Tokugawa era proved no more able than that of previous periods, to rise above the level set by Confucian ethics and models. It was stilted, barren, and without inspiration or outlook. Education limited its scope to the instruction of boys in Chinese classics, Japanese history, laws, and a little mathematics and Japanese literature. It had little or nothing to do with real life or the development of manhood. Ideas on education were as confused as they were on religion. Though in the past education had been largely a matter of mental drill under the tutelage of the Buddhist priesthood, it had no vital connection with religion. The Japanese seem never to have associated religion with real life: it was usually treated as a thing apart. Yet Shinto, the native religion of the Japanese, taught that true citizenship involved the worship of the Emperor as the descendant of the gods, which would seem to have some connection with practical life, since loyalty is a practical ideal of citizenship. In the modern system of Japanese education this confusion and inconsistency prevails, the nation denying that religion can have any connection with education, while insisting on the pupils of the schools worshipping before the national shrines! The Tokugawa authorities at first cared for none of these things. Their main concern was with making the subject loyal to his master, and every one obedient to the rule of the shogun. For this Confucianism was more adapted than either Shinto or Buddhism; for Shinto

insisted on loyalty to the Imperial House, whose rights the shogunate had in some degree usurped, and Buddhism was devoted to theological intricacies that could never prove practical politics, while the main principle of Confucianism was loyalty of inferior to superior, an excellent religion for promoting Prussianism. Against this aggressive insistence on absolute subservience to government authority there came a reaction due to a revival of the ancient classics of the nation under teachers like Motoori and the lord of Mito, himself a member of the Tokugawa family, which in time began to shake people's faith in loyalty to the shogun and turn it back to its original objective in the Imperial House. Thus it will be seen that education in the Tokugawa era no more escaped from Chinese influence than it did in previous ages, and Confucianism still remains the foundation of morality and education in Japan.

INTRODUCTION OF MODERN EDUCATION

It has already been pointed out that up to the end of the Tokugawa period in 1868, there was no proper system of education in Japan, the schools being under the auspices of Buddhist temples, and culture confined to the few. Preparation, nevertheless, had long been going on for a change in education, which eventually reached its consummation in the Meiji era, the so-called Era of Enlightenment, when Japan set about a transformation to modern ways. This preparation, it is true, was limited to but few, yet these had an influence far beyond their own



SCHOOL BOYS

individual importance. How was it that a people isolated for centuries from the Western world came suddenly to decide to change its policy? There are those who suppose that the idea had birth with the arrival of Commodore Perry, who opened up Japan to foreign intercourse in 1854. As far back as 1573, however, a Japanese embassy had traversed the whole of Europe and returned with marvellous stories of the barbarian world. This arrested the attention of the nation and furthered the welcome offered the Europeans who came to Japan for purposes

of trade and religious propaganda. From 1542 to 1637 Japan was under the influence of the Portuguese, Spanish, Dutch, and English, who began the movement toward overthrowing the intellectual and moral domination of China, which was partially completed by the colony of Dutch interpreters at Nagasaki, whose influence remained unbroken over Japan from 1611 to the opening of the country in 1854. From these foreigners Japan gradually became conscious of the greatness and necessity of a world of knowledge yet unacquired by her. As she listened with amazement to the tales of empire and achievement retailed to her by such men as Kaempfer and von Siebold, curiosity and ambition overthrew the walls of conservatism, until not only were the strangers permitted to sojourn in the land after the Spanish and Portuguese had been banished, but steps were taken to learn all that the Dutch could teach.

In this way it came about that a considerable knowledge of Occidental arts and crafts, mathematics and medicine, began to circulate throughout the Empire, and the sacrifices made by the youth of Japan to obtain what information the foreigners could impart was unprecedented in the experience of the teachers. The circumstances only go to show what an apt pupil Japan would have proved had she not been isolated from the Europe of the mediæval period, and perhaps by this time might have surpassed the Europe of to-day.

Shortly after Commodore Perry had succeeded in negotiating his treaty of amity and intercourse with Japan, a deputation of the leading minds of the nation, including some of the more brilliant pupils of the Dutch teachers at Nagasaki, was sent abroad to investigate the secrets of Occidental progress, and to report on Japan's requirements for successful development of the Empire and efficient competition with the outside world. Among the more important recommendations made by the deputation on its return was the establishment of a modern system of education. In 1869 an ordinance relating to universities, secondary and primary education, was issued, and in 1871 the first Department of Education was organised for the supervision of the schools to be established throughout the Empire. One of the most important articles in the five sections of the Imperial Oath sworn to on April 6, 1868, in the presence of the Imperial Princes and other high personages of State, at the palace in Kyoto was: "Knowledge shall be sought for throughout the world, so that the welfare of the Empire may be promoted." This gave the keynote to the great educational change that rapidly



SCHOOL EXCURSION TO NARA PARK



SCHOOL GIRLS

followed and supplied Japan with a carefully devised school system. In 1872 a code regarding education was promulgated, consisting of one hundred and nine chapters, dealing fully with all subjects connected with the establishment of the new system. Education was to be diffused everywhere. There was not to be a village with an ignorant family nor a family with an ignorant member. The system put into force was based on the French model. The whole country was divided into eight educational districts, each to have one university, 32 middle schools, and 6,720 primary schools, or one elementary school for every 600 of the population. Superintendents were duly appointed to see to the establishment and maintenance of these institutions.

The hastily prepared, cut-and-dried system of education thus imported from abroad and imposed upon the whole Empire proved immature, however, and, as it was thought an American model might be better for Japan, where education was to be made universal, educational experts were sought from that country, and Dr. David Murray,

of the Massachusetts State Department of Education, was brought out to reorganise the new system. This he did with excellent effect, establishing schools all over the country; but the authorities, fearing the opportunities afforded for the development of individuality by the American system, later introduced Prussian models as being more consistent with native ideals. From the beginning the Japanese insisted on having a system that was purely utilitarian, unassociated with religion. No distinction was drawn between moral and intellectual training; which was quite in line with Shinto teaching as well as Confucianism, that morals are for barbarians, a Japanese being so inherently moral that he may always do what he thinks. Although religion was rigidly excluded from the new system of education, the pupils in Japanese schools are brought to worship at the national shrines, which the authorities insist is not associating religion with education. It is clear that the educational authorities of Japan were from the first, if not suspicious of foreign ideas, yet very restless under foreign guid-

ance, as they always are; and consequently students were early sent abroad to familiarise themselves with American and European methods of education, that they might return and adapt these methods to Japanese ideas as far as was consistent with national ideals. It is rather difficult, however, to Japanise the truth; and, with Western conceptions of education, and foreign influence generally, constantly filtering into the country, the notions of science, religion, and human freedom that consequently began to grow, threatened the native cosmogony and tended to disturb traditional tenets as to monarchy and government. Therefore, with a view to controlling these alleged "dangerous thoughts," as they were called, the regulations pertaining to education were revised in 1880, the discipline and management of students being made more rigid and strict, which, however, did not seem to bring about the desired effect, as school discipline in Japan is anything but good, and school strikes are an increasing feature of education. The conservative reaction against the new code was so strong that the entire

educational code was revised once more in 1886, an Imperial Ordinance was again issued in relation to universities, middle and normal schools, and inspection was made more exacting. The new trend in education was appropriately marked by the employment of a German to take the place of an American in the Teachers' Training College for those of higher grade, and soon military and physical training was added to the curricula of the various schools. The Prussian ideals of education then introduced as being more consistent with Japanese nationality, still obtain with increasing emphasis, whereby the individual is a mere lump of dough to be modelled into whatever shape the authorities may decide, independently of will and individual fitness. All pupils are now turned into a machine from which after a prescribed time they are turned out, all after the same pattern, models of absolute subservience to authority, recognising no other duty and claiming no other rights; but grossly ignorant of the first principles of citizenship and good government, as understood in Western countries. The defects of Japanese education have been frequently pointed out by leaders of thought in Japan, and need not here be specially dwelt upon.

To correct the dangers arising from Western ideas of education and form a statement of Japanese ideals on which all education in future might be safely based, the following Imperial Rescript was issued in 1890:

"Know ye, Our subjects:

"Our Imperial Ancestors have founded Our Empire on a basis broad and everlasting and have deeply and firmly implanted virtue; Our subjects, ever united in loyalty and filial piety, have from generation to generation illustrated the beauty thereof. This is the glory of the fundamental character of Our Empire and herein lies the source of Our education. Ye, Our subjects, be filial to your parents, affectionate to your brothers and sisters; as husbands and wives be harmonious; as friends, true; bear yourselves in modesty and moderation; extend your benevolence to all; pursue learning and cultivate arts, and thereby develop intellectual faculties and perfect moral powers; furthermore, advance public good and promote common interests; always respect the Constitution and observe the laws; should emergency arise offer yourselves courageously to the State; and thus guard and maintain the prosperity of Our Imperial Throne coëval with Heaven and Earth. So shall ye not only be Our good and faithful subjects, but render illustrious the best traditions of your forefathers.

"The way here set forth is indeed the



"HOME LESSONS"

teaching bequeathed by Our Imperial Ancestors, to be observed alike by Their Descendants and Their Subjects, infallible for all ages and true in all places. It is Our wish to lay it to heart in all reverence, in common with you Our Subjects, that we may all attain to the same virtue."

"The 30th day of the 23rd year of Meiji."
(October 30, 1890)

(Imperial Sign Manual. Imperial Seal.)

A copy of the above rescript is distributed by the Department of Education to each school in the Empire, and is kept in a sacred place, with photographs of the Emperor and

Empress; and on all important public occasions they are brought out, when the assembled school hears the reading of the Imperial Rescript and bows before the imperial portraits, the function being regarded as the most solemn that can take place. Cases are on record where teachers and school officials have given their lives to save the imperial pictures from fire or other destruction, the victim being accorded the rank of a hero forever.

Education in Japan, being considered one of the most important functions of the State, is entirely under Government control. The department charged with these duties



PHYSICAL DRILL BY GIRLS AT A SCHOOL DEMONSTRATION, YOKOHAMA



SPORTS AT WASEDA UNIVERSITY

is under the Minister of Education who directly or indirectly supervises the whole educational system of the Empire. It is to be noticed that in Japan education is not based on laws passed by the national legislature, but on Imperial Ordinances issued by the Emperor on recommendation of the cabinet after being submitted to the Privy Council. The people, therefore, have no voice in how their children are to be educated.

JAPAN'S EDUCATIONAL SYSTEM TO-DAY

THE educational system of Japan as it stands at present may be said to have its basis in a patriotic and aggressive materialism. Its controlling motive is undoubtedly utilitarian rather than the improvement of morals or the acquirement of culture. Its most glaring weakness is that it fails to draw out and develop the natural powers to the same extent that it succeeds in cramming the mind of the rising generation with a vast collection of all sorts of unrelated and undigested facts about the science of the modern world, and the general affairs of Occidental life. The Japanese apparently have not yet reached that period of national evolution where they are so much concerned with man's potentialities or his place in the universe, as they are with their own destiny on earth and the best means of ensuring it. Education in Japan is not influenced by any profound philosophy of life, nor by religion in any sense that the West would not regard as superstitious. There are, of course, here and there some hopeful indications of a change, especially since the war with Russia and the unprecedented conflict in Europe, both of which have given Japan much food for thought. From an educational point of view, however, these two great events in human history leave Japan still seriously confused. The victory over Russia was ascribed to the superiority of the Japanese spirit under impetus from the spirits of the Imperial Ancestors, but the war in Europe has shown that the spirit of the Anglo-Saxon is in no sense inferior to that of the Japanese.

This will doubtless lead the more intelligent of Japanese educationists to lay greater stress on the moral side of human culture, while the war itself must prove to Japan that real education implies application as much as theory and the mere acquirement of facts.

Apart from the weaknesses above indicated, the educational system of modern Japan is fairly fulfilling the aim of its founders and directors. The aim which it emphasises is a general education for the masses, a special education for the professions, and a technical education for industry and trade, each of these branches of education being divided into three grades: primary, secondary, and higher education. The system of general education is supposed to impart the knowledge and training essential to every citizen without reference to any particular occupation or calling. It is entrusted for the most part to the primary schools, to which all the children of the nation must go. In this respect Japanese education may be said



SPORTS AT WASEDA UNIVERSITY

to resemble that of the United States, though apart from universality the resemblance ceases. The middle schools of Japan are nothing more than the primary schools carried to a higher grade. Special education has to do with instruction in science and art for the promotion of social and industrial progress: it provides specialists in law, politics, medicine, science, literature, music, painting, and pedagogy. Technical education comprises the knowledge necessary to farmers, mechanics, artisans, merchants and others, for which the nation has provided agricultural schools, technical schools, and commercial schools, of various grades. In addition to the schools under the Board of Education there are schools in connection with the Imperial Household Department, the Army and Navy, the Department of Home Affairs, and the Department of Communications; and there are numerous private schools corresponding in purpose and grade to the various Government schools already mentioned.

It will thus be seen that the educational system of Japan divides its common schools into three grades; elementary, secondary, and high schools. These, together with four imperial universities and various special and technical schools, form the main educational forces under direct control of the Government. Of course it must be remembered that all education in Japan is more or less under official supervision, including even private schools if they desire recognition from the Department of Education, and this all *do* desire, since without it the graduates of such schools would stand no chance of appointments. For the more careful control of national education the Department of Education has three bureaux, known as the Bureau of General Education, the Bureau of Special Education, and the Bureau of Religion, the latter surely being an anomaly in a land that ostensibly insists in separating religion and education in theory while interfering to some extent with religion in practice.

The school age in Japan is from six to fourteen, the child entering the primary school on completing the sixth year, and there attendance is compulsory for the next six years of life, during which time the pupil must apply the mind studiously for five hours a day, six days a week, with rest on Sundays and national holidays and about one month in summer. The Japanese, however, regard holidays as a sign of inferiority physically and do not encourage them, some schools insisting on lessons during the unbearable heat of summer, the pupils attending naked. Before entering the primary school, pupils may attend kindergartens, if there be any in the neighbourhood, but in Japan such schools are yet in a nascent stage, there being no more than 535 in the whole Empire, with 45,000 pupils and 1,535 teachers. The elementary schools are of two kinds, known as the ordinary and the higher, but in many instances both are in the same building. Children are universally under compulsion to attend the ordinary elementary school for six years; and then if they do not intend to proceed to the middle school, they may take



SPORTS AT WASEDA UNIVERSITY

further advanced courses in the local higher elementary school. The existence of private elementary schools side by side with public schools of the same grade is recognised by law, provided such schools are subject to Government supervision. As a rule the children of all classes attend the same school, though there is a distinct movement toward providing separate private schools for children of the better classes, especially in female education. Every locality is bound to make provision for all the children within its jurisdiction, but arrangements are made by which several small communities may combine in a school union, bearing the costs of primary schools for several villages, each village sharing proportionately the expenses. Sometimes school grants are afforded to poor districts by the county authorities. The higher elementary school course as a rule extends over two or three years, according to the decree of the local authorities, and a small fee may be charged. About 65 per cent of primary education in Japan is represented by schools of the lower grade, while 35 per cent would represent those combining the higher standard. In primary schools boys and girls may be taught together or the sexes may be in separate classes. The number of elementary schools is now 25,615, with 157,285 teachers and 7,095,755 pupils. The curriculum embraces instruction in Japanese morals, Japanese language, arithmetic, Japanese history, geography, science, drawing, singing, gymnastics, and sewing for girls, with manual training for boys, and during the last three years of the course the following subjects are added: agriculture, commerce, and English language, the latter depending on local circumstances. Although the teaching hours must number at least from 21 to 32 per week according to age, in certain schools 18 hours a week may be permitted, and in the case of young children 12 hours a week. All text books are provided by the Department of Education and purchased by the pupils, the subjects being treated carefully from a native point of view. Owing to the strict regulations attendance is very regular and satisfactory at elementary schools, reaching, as it does, a total of 98.16 per cent, as may be seen from the following table:

| CHILDREN OF SCHOOL AGE | | | CHILDREN AT SCHOOL | | | AVERAGE | | |
|------------------------|-----------|-----------|--------------------|-----------|-----------|---------|-------|-------|
| Boys | Girls | Total | Boys | Girls | Total | Boys | Girls | Av. |
| 3,854,376 | 3,558,792 | 7,413,168 | 3,805,817 | 3,471,107 | 7,276,924 | 98.74 | 97.54 | 98.16 |

From the elementary school, in which the vast majority of the children of Japan complete their education, those desiring, and able to afford, a higher course of study, pro-

ceed to the middle school, though there is not always sufficient accommodation to receive them. From and including the middle school upward the education of the sexes in Japan is strictly separate, and even the schools are of different standard, that for girls being lower. At present there are only 318 middle schools for boys in the whole Empire, with 6,276 teachers and 131,846 pupils, indicating an accommodation certainly inadequate for a population of 57,000,000 people. The subject of educational provision is all the more pressing when it is remembered that the Japanese system is like a machine, and unless one passes through the entrance he is not permitted to issue at the exit; and all young men who hope to secure employment under the Government in any capacity, or in banks, schools, and the higher circles of commerce and industry, as well as those who hope to get a university education, must first pass through the middle school. The method of limiting numbers is by severe competitive examinations, with the result that nearly 50 per cent of the youth of the nation, anxious and ready for higher education, are precluded from ever realising their ambitions in this direction, and through no fault of their own. Lack of school accommodation is one of the greatest disabilities that the rising generation of Japan has to face; but so long as the main volume of expenditure is devoted to armament expansion there is no hope of relief. As the Government spends little more than 10,000,000 yen annually on education, it has been suggested that the present deficiency in school accommodation could be met by doing with one gunboat the less. Many an ambition cruelly nipped in the bud by lack of facilities for education has led to suicide, or a life of dissipation equally ruinous. Over against the Government outlay on education we have some 80,000,000 yen spent by the people themselves every year, which amply indicates the interest being taken in the subject by the people of the Empire.

Japanese boys enter the middle school at the age of 12, having first completed the six years required at the elementary school, and they must then pass through a course of study covering five years, with a supplementary

much more important than the graduating examination, as few matriculants are successful, but all invariably graduate. This is doubtless because room can not be afforded for keeping a student to take his course over again, on account of the number waiting to enter, and the result is that hundreds of young men possess diplomas who are not up to the standard entitled to them. Education is thus turned into a process of putting in the required time, rather than in mastering and applying the required knowledge and culture, which again quite corresponds with a theory of education that involves cramming instead of educating individual ability and talent. The middle school curriculum requires over 30 hours a week of study, which includes Japanese morals, Japanese language, Chinese classics, either the English or German language, history, geography, arithmetic, natural history, physics, chemistry, drawing, singing, and gymnastics, including military drill. The regulations also provide for instruction in law and economics, but the hours for these subjects may be devoted to foreign languages, while singing may be omitted. Great stress is laid on the Japanese language, and on the Chinese classics, the one being essential to success in practical life, and the other to an understanding of Confucian morals. Next in importance come modern languages, chiefly English, for which the more important middle schools employ a foreign instructor in addition to native teachers. There are numerous private middle schools besides those under official auspices, all being subject to the same supervision, and many of them supported by foreign mission boards.

Graduates of middle schools, who wish to enter the teaching profession, must enter a normal school, men and women proceeding to separate institutions, where they take a course of five years morality, pedagogics, Japanese language, Chinese literature, English language, history, geography, mathematics, natural history, physics, chemistry, law, economics, penmanship, drawing, manual training, music, and gymnastics or drill, the only optional subject being English. They have to study 31 out of the 34 hours per week on the curriculum. In connection with each normal school is an elementary school in which prospective teachers practise. Tuition in normal schools is free, and students are provided with board and clothing, in return for which they must serve as teachers for a certain period in the locality where they have been trained. In normal schools great stress is laid on rigid discipline and on military training. There are also two higher normal schools, one in Tokyo and one in Hiroshima, with others for women, all having a course of four years. There are two kinds of

course not exceeding one year in duration. In Japan the main difficulty is to get into a school; there appears to be none in leaving it. In other words, the entrance examination is

certificates for teachers, General Certificates granted by the Department of Education and valid anywhere throughout the Empire, and Prefectural Certificates, available only in the prefecture where they have been issued. In addition, there are certificates for regular teachers, assistant teachers, and special teachers, each carefully indicating the grade of school where the holder may be employed. The number of ordinary normal schools for men is 86, in addition to the two higher institutions already mentioned, and the number of teachers is 1,623, with 27,928 pupils. Of girls' higher normal schools there are also two, with 126 teachers and 680 students. Girls attend the ordinary normal schools in separate classes from the boys. In spite of the years of training afforded, the native teacher is regarded as, on the whole, rather inefficient, due possibly to the methods already indicated in the case of Japanese education generally. It is impossible for the Prussian system in vogue to escape from being mechanical, carefully following rules and regulations rather than pursuing reason and progress, with careful application and development of initiative. The Japanese now regard themselves as equal to Western nations in pedagogical attainments and no longer employ foreign experts in this department, except as instructors in language only. But no one familiar with Japanese education can avoid the conviction that the system has still much to learn from Western countries, especially in the science of teaching. This is now sought by sending Japanese teachers abroad for a short time to acquaint themselves with methods adopted by experts in England, Germany, and the United States, but it requires a man of unusual ability and natural talent to gain much from a brief sojourn under foreign educators. Much more practical would it be to have British or American pedagogical experts in Japanese normal schools, to collaborate with native instructors as to methods of teaching. But as Western schools of education do not adopt this method, Japan considers it likely to create a misunderstanding as to her advancement to do so. All normal schools in Japan, whether under prefectures or the Government, must have a Government director, paid by the Department of Education. There are eleven school inspectors under the same department, whose duties are mainly connected with supervision of primary schools, but there is still greater need for more efficient inspection in regard to middle and higher schools.

The Japanese high schools were established for the purpose of preparing pupils in a special way for entrance to the various colleges of the imperial universities. Of these institutions



COMMEMORATION HALL, WASEDA UNIVERSITY—LECTURE HALL OF THE MEIJI UNIVERSITY—
JOCCHI UNIVERSITY, TOKYO

there are now eight, one each at Tokyo, Sendai, Kyoto, Kanazawa, Kumamoto, Kagoshima, Okayama, and Nagoya. The high schools lay emphasis chiefly on three phases of university study: the faculties of Law and Literature, of Pharmacy and Medicine, and of Science and Engineering; in all of which the principal subjects are ethics, Japanese language, English, Chinese and German, or French, each course affording facilities for specialising according to the department the

in foreign languages. All the graduates of high schools do not proceed to the university, of course, as these institutions are also regarded as schools where men of talent are prepared for the Government services and higher callings of life. In addition to the national high schools there are five commercial high schools which turn out hundreds of graduates annually for the ranks of trade and industry. At the eight national high schools there are 358 instructors, with 6,359 students.

university at Kyoto still lacks a faculty of Agriculture, but has 172 instructors and 1,707 students; while the University of Tohoku, with colleges of Science, Agriculture, Medicine, and Engineering, has 187 instructors and 1,945 students. The new university established at Fukuoka in Kyushu in 1910 has only 79 teachers, and 595 students enrolled, having as yet only the two colleges, one of Medicine and one of Engineering. The average age at which students enter the



TECHNICAL SCHOOL, TOKYO IMPERIAL UNIVERSITY—THE LAW COLLEGE, TOKYO IMPERIAL UNIVERSITY

student expects to enter at the university. In the section concerned with Literature and Law, for instance, the principal subjects are history, logic, mental philosophy, elementary law, political economy and so on, while in the medical section stress is laid mostly on mathematics, physics, chemistry, zoölogy, botany, and drawing, while in the third section geology and mineralogy are more important than zoology and botany. Here also accommodation is sadly limited, the rigid competitive examinations excluding thousands of ambitious youths who are unable to gratify their thirst for higher education. The high schools devote much attention to instruction

There are at present four Imperial Universities in Japan: one each at Tokyo, Kyoto, and Kyushu, and the University of Tohoku, in the north. The Tokyo University, which is the most important, was established in 1877, arising from an amalgamation of older colleges. It was created an Imperial University in 1886 and assumed its final form in 1890. It now consists of a University Hall, a College of Law, a College of Medicine, a College of Literature, and a College of Science and Engineering and of Agriculture. At present the number of instructors at the various colleges of the Imperial Tokyo University is 377, with 4,993 students. The

university is about twenty-three, and as they have to spend four years at the institution they are nearly thirty before entering upon their life's work. This is regarded as a disadvantage, which the authorities are endeavouring to obviate. There is also a Woman's University in Tokyo, which is of lower grade than the usual institution under that name. Tokyo also has several private universities, such as the Keiogijuku, founded by the late Mr. Fukuzawa, which has faculties of Law, Politics, Economics, Medicine, and Literature, and the Meiji University and Waseda University, with the same faculties with the exception of Medicine. There

are some thirty-four others of university standard but possessing only one or two faculties, the most important of which is the Doshisha in Kyoto. The Christian Church, as represented by various foreign mission boards, is contemplating the establishment of a first-class university in Tokyo under Christian auspices to meet the deficiency in university accommodation in Japan, but whether this movement will come to anything remains to be seen.

Japan has numerous other schools of various kinds. There are six schools of medicine, with three other medical schools established by prefectures, to say nothing of private schools of medicine, the period of study at which is four years for medicine and three for pharmacy. To each government medical school a hospital is attached and every equipment is provided for a complete medical education. The graduates of these colleges, however, are below those from the schools of medicine connected with the Imperial Universities, as they lack the preparatory high school education and proficiency in foreign languages. The Government also provides a school of foreign languages in Tokyo, where practical instruction is given both by native and foreign teachers in English, German, French, Italian, Spanish, Russian, Chinese, Korean, Tamil, Hindustani, Mongolian, and Malay, the course taking three years. For this school also the number of applicants is far more than can be admitted. For the education of students in technical subjects fourteen colleges are established in various parts of the Empire, and there are also many others of secondary and primary grade. There are also schools for mechanics, dyeing, weaving, architecture, chemistry, mining, metallurgy, and commerce, the usual course being three years, with facilities for postgraduate work. The higher education of women is provided by girls' high schools and the one woman's university, already mentioned. There are 330 girls' higher schools, which are practically only of middle-school grade, having 4,118 teachers and 83,287 pupils. The education of women is still more or less neglected in Japan, though there are efficient higher schools under private auspices, such as the Toranomon School, and the Peeresses' School, as well as various mission schools for girls. Under the influence of Buddhist and Confucian teaching the women of Japan have been for centuries relegated to a secondary position, their chief duty being as faithful wives and devoted mothers. With the advancement of civilisation, however, and a greater division of labour, the Japanese woman is coming to the front as a competitor with man in the ranks of trade and

industry, and, as for this some special education is necessary, more attention is now being given to the provision of schools for women in Japan.

One of the greatest handicaps of Japanese education is the immense disadvantage under which the child labours in having to devote so much time to the memorising of the thousands of Chinese ideographs that he must know before being able to read. The difficulty might easily be obviated by the substitution of the Roman alphabet for the native characters, but prejudice is yet too powerful and ingrained to permit this, and thus the mind of the rising generation is cramped and burdened by unprogressive labour, until at the age of even fourteen ability to read a book or newspaper is still unattained, all the early portion of youth being enslaved to merely memorising word-pictures that could much more readily be known from the twenty-six letters of the Occidental alphabet. A movement has been started to save the three years of every Japanese child's life wasted in memorising Chinese characters, though it is discouraging to find that it has made so little progress. For international reasons, too, it is very necessary that Japan should adopt a modern system of writing, since the use of ideographs is always a positive deterrent to a study of the Japanese language by Western nations.

The following statistics show the number of Japanese schools, teachers, and pupils in the year 1916:

| INSTITUTION | NUMBER | TEACHERS | PUPILS |
|------------------------------------|--------|----------|-----------|
| Elementary schools..... | 25,615 | 157,285 | 7,095,755 |
| Middle schools (boys)..... | 318 | 6,276 | 131,846 |
| Middle schools (girls)..... | 330 | 4,118 | 83,287 |
| High schools..... | 8 | 358 | 6,359 |
| Normal schools..... | 86 | 1,623 | 27,928 |
| Higher normal schools (men)..... | 2 | 126 | 1,077 |
| Higher normal schools (women)..... | 2 | 96 | 689 |
| Imperial universities..... | 4 | 815 | 9,572 |
| Special schools (high)..... | 17 | 1,991 | 30,109 |
| Technical high schools..... | 19 | 673 | 7,098 |
| Technical common schools..... | 531 | 4,639 | 80,922 |
| Teachers' training institutes..... | 5 | 26 | 339 |
| Sericultural schools..... | 2 | 48 | 338 |
| Other schools..... | 2,532 | 7,633 | 154,429 |
| <i>Total</i> | 29,471 | 185,707 | 7,629,748 |

The number of foreigners employed in Japanese Government schools is now 105, of whom 31 are British, 17 American, 11 French, 27 German, and the rest other nationalities, the total amount paid annually in salaries to foreign teachers being 366,510 yen. Salaries to foreign teachers range from 250 to 300 yen a month, though a few get

higher remuneration. The foreign teacher, however, is at present somewhat at a discount in Japan, and there is little to encourage those of higher standing and ability to undertake service in this country, as the work has no future. Even in the Imperial Universities there are no professors of English now, although that is the chief foreign language, the foreigners employed there being relegated to the rank of instructors, or assistants to the Japanese professors, who regard themselves as quite capable of lecturing on English language and literature. The whole system of foreign-language teaching in Japan is admittedly quite unsatisfactory, simply because most of those engaged at it are not teachers in the modern scientific sense of the term, and the Japanese system does not allow the student proper opportunities for language study.

OUTLAY ON EDUCATION

IN Japan education is not free except for the absolutely poor and indigent, most of the schools charging a small fee, which in elementary schools amounts to about ten sen per month in rural districts and twenty sen in urban districts, while the fee for higher grades is thirty sen for the country and sixty for the city. Of the total number of children attending school in 1916, 24,578 were exempted from fees, and 107,030 partially exempted. The salaries paid in elementary schools are much too small to command either ability or efficiency, the average being about eighteen yen a month.

Many teachers, especially women, get as low as five yen a month. Out of 131,295 elementary school teachers in 1916, 65 received less than 5 yen a month, only 875 received over 50 yen a month, while the vast majority ranged between 15 and 20 yen per month. For middle schools the salaries of teachers average about 47 yen a month,

while pupils sometimes pay as high as 2 yen a month in fees. In high schools the fees are from 30 to 35 yen a year, while the salaries of teachers range from 60 to 100 yen a month; and the same rates apply to the universities, except that professors' salaries are naturally somewhat higher. Owing to the largest portion of the annual budget being appropriated for military expansion, the amount devoted by the Government to education must always be quite inadequate to the needs of the nation. After the war with China, in 1895, some 10,000,000 yen was set apart from the indemnity received, as an educational fund, but this was again appropriated by the war chest during the war with Russia, in 1905, to be refunded later. This has not been done, however, except that the National Treasury affords a grant of 250,000 yen each year for the original purposes of the fund. A supplementary fund was created in 1901 which now amounts

to about 4,500,000 yen. Another fund of some 6,000,000 yen exists for increasing the salaries of teachers. The annual grant of 250,000 yen has recently been increased to 500,000, devoted mostly to construction of new school buildings and the rewarding of deserving teachers. For the promotion of commercial, technical, agricultural and other forms of education the Government makes further grants to the amount of some 300,000 yen a year, but the burden of education in Japan has to be borne by the provinces. In spite of the enormous rate of taxation imposed in Japan the Government in 1916 afforded only 10,798,209 yen for public instruction, while the provinces paid directly for schools about 78,000,000 yen.

It is only in recent years, especially since the great wealth accumulated during the European war, that any citizens of Japan have begun to take an interest in the endowment of education. The example was set

by Baron Okura, who founded and endowed with a sum of 500,000 yen a commercial school in Tokyo and another in Osaka, the Sumitomo family following suit in 1915 by donating more than 1,000,000 yen to an apprentice school in Osaka, while the Furukawa Mining Company has endowed a faculty of science at the Kyushu University with a sum of 1,000,000 yen, and Mr. Yasukawa, another mining millionaire, gave an endowment of over 3,000,000 yen to establish a technical college at Wakamatsu. The nation as a whole, however, including the Government, has not begun to realise the absolute necessity of efficient education to national progress; in which respect, of course, it is not unlike even some Western countries. The only departments that show any adequate appreciation of the importance of education are the Army and Navy; and even these are by no means as efficient in this respect as they could be.





TORII GATE OF HIKAWA TEMPLE

XXIII. LANGUAGE AND LITERATURE

THE JAPANESE LANGUAGE—JAPANESE LITERATURE—POETRY AND DRAMA

THE language of Japan is associated by philologists with the Turanian or Oural-Altaic family, of which Turkish, Finnish, Tinguistic, and Korean are also surviving tongues. Like these, Japanese is distinctively an agglutinative language, building up its words and grammatical forms by means of suffixes loosely joined to roots or stems, the latter undergoing no change, though these particles which take the place of inflexions in other languages, in being affixed to the roots are sometimes blended with them sufficiently to satisfy the requirements of euphony. Further fundamental characteristics of the structure of the Japanese language are its use of postpositions in place of prepositions, while qualifying words must invariably precede the words they modify and dependent clauses always the principal clause, the principal verb always coming last in the sentence. The object, moreover, invariably precedes the verb.

There is no relative pronoun, and personal pronouns are used but sparingly. The Japanese do not say, "The man who came yesterday," but "Yesterday's came man," and in asking the question, "Do you see it?"

| | |
|---------------------------------------|--|
| <i>Kané wa nai</i> (I have no money); | <i>Ano hito wo mimaska?</i> (Do you see that man?) |
| Money as-for is-not | That man (accus) do-you-see? |

no pronoun is used, the question being simply, "See it?" In accordance the dissimilarity to English is still more striking, as Japanese nouns have no number or gender, and adjectives no degrees of comparison

| | | | | | | | | |
|-------------------|-----------|----------------|-----------|---------------|----------------|----------------|--------------|------------------|
| <i>Kaeri-gaké</i> | <i>ni</i> | <i>kankoba</i> | <i>ye</i> | <i>yotte,</i> | <i>sukoshi</i> | <i>kaimono</i> | <i>shite</i> | <i>kimashita</i> |
| Returning-while | in | bazaar | at | stopping | little | buying-thing | doing | have come |

except what can be conveyed by using "more" and "most," while even verbs have no persons. But verbs, on the other hand, have a negative voice and forms to indicate causation and potentiality, as well as an elaborate system of honorifics which to some extent compensates for the absence

of verb inflexions for persons and the absence of personal pronouns. In Japanese, *wa* is the particle which signifies the nominative case, *ga* being also used, and *wo* indicates the accusative, as —

In Japanese the object often becomes the subject, as in the first example above given. A further example of construction in a longer sentence may be seen from the following:

In English we should say: "On my way back I stopped in at a bazaar and did a little shopping." To get any adequate idea of the intricacies of Japanese construction, however, a paragraph of composition should be studied. The following is a very good example, taken from a Buddhist sermon:

| | | | | | | | | |
|-----------------------------|---------------------------------|-------------------------------|--|----------------------------|---------------------------------|---------------------------------------|-------------------------------------|-------------------------------|
| <i>Uma</i> Horse | <i>ni</i> to | <i>mukatte</i> confronting | " <i>Koko</i> "Filial-piety | <i>wo</i> (accus) | <i>tsukusé!</i> exhaust!" | <i>okami</i> wolf | <i>ni</i> to | <i>mukatte</i> confronting |
| <i>Chugi</i> Loyalty | <i>wo</i> (accus) | <i>tsukusé!</i> exhaust!" | <i>nada</i> etc. | <i>to</i> that | <i>itta</i> said | <i>tokoro</i> place | <i>ga</i> although | |
| <i>dekiru</i> forthcomes | <i>koto</i> fact | <i>de wa</i> indeed | <i>gozaimasen</i> is-not | <i>ga, hito</i> but man | <i>wa</i> as-for | <i>ze-hi</i> right-wrong | | |
| <i>zen-aku</i> good-evil | <i>wo</i> (accus) | <i>wakatsu</i> discern | <i>chié</i> intelligence | <i>ga</i> (nom) | <i>atté</i> being, | <i>kimi ni chu</i> lord to Loyalty | | |
| <i>wo</i> (accus) | <i>tsukushi,</i> exhausting, | <i>oya</i> parent | <i>ni ko</i> to | <i>wo</i> Filial-piety | <i>tsukushi,</i> exhausting, | <i>kyodai</i> brethren | <i>wa</i> as-for, | <i>naka</i> intercourse |
| <i>yoku</i> being-good, | <i>fufu</i> spouses | <i>wa</i> as-for | <i>mutsumashiku</i> being-harmonious, | <i>hoyu</i> friends | <i>ni</i> to | <i>wa</i> as-for | <i>shitashiku</i> being-intimate | |
| <i>makoto</i> sincerity | <i>wo</i> (accus) | <i>motté</i> taking, | <i>majiwatte</i> having-intercourse | <i>koso,</i> indeed, | <i>hajimeté</i> firstly | <i>shin no hito</i> truth's person | | |
| <i>to</i> that | <i>waremasu.</i> gets-said. | | | | | | | |

In ordinary English the above would be as follows: "If you were to say to a horse, 'Practise Filial Piety!' or to a wolf, 'Practise Loyalty!' and so on, they would not be able to do it; but man has the intelligence wherewith to discern right from wrong, good from evil, and he can only be said to be truly man when he practises loyalty towards his master and filial piety towards his parents, when he is affectionate towards his brethren and lives harmoniously with his wife, when he is amiable towards his friends and acts sincerely in his social intercourse."

It is a remarkable fact that although the Japanese language has some structural features in common with the same family of languages, it yet has nothing in common as to vocabulary, with the exception of a few words of Korean origin. Of course after the advent of Chinese influence additions from the vocabulary of that language became numerous, especially for official and technical

purposes. The masses of the people, however, ignored most of the strange words, and the language of the country did not change. The sound of Japanese speech is distinguished for its musical softness in which it may be said to surpass any of the languages of Europe, all words ending in vowels excepting those concluding with the consonant *n*. The less it is mixed with Chinese or other foreign words the more pleasant it is to the ear, and therefore comes most sweetly from the lips of Japanese women, whose language is always purer than that spoken by the men of the country. It is, therefore, only in a technical way that the language of Japan has been enriched by that of China. By a skillful combination of Chinese monosyllables the Japanese can express any technical term desired, just as Western scientists do with Greek and Latin in arriving at terms to convey scientific ideas. Electricity becomes *den-ki*, or "lighting-spirit"; and *jin-riki-sha* "man-power-car";

torpedo, "water-thunder"; fish-torpedo, "fish-form-water-thunder," and so on. In all Chinese words and their combinations a Japanese pronunciation is used and to all intents and purposes they are regarded as part of the native language, much in the same way as we regard words of Latin or French extraction in English speech.

It must also be remembered that the spoken language of Japan is quite different in many respects from the written language. This, of course, is true of European languages also to some extent, there being a natural difference between the colloquial and the literary styles, but the difference is still more marked in Japanese, since the spoken language is an ear-language, intended only for hearing, but unpleasant to the eye, while the written language is an eye-language, not intended for the ear, and some Japanese can not well understand written language unless they can see it. The spoken language is natural and the written is artificial, the latter being composed of Chinese ideographs which are pictures made for the eye. The Japanese originally had no way of writing, the art being introduced from China and the Chinese method of writing adopted. As the mass of the people could neither remember nor understand the foreign ideographs, a native syllabary was invented in time to convey the sounds of the foreign characters. This syllabary for phonetically expressing the pronunciation of the Chinese ideographs appeared in the eighth century, the sounds of the language being analysed into forty-seven syllables, symbolised by abbreviated forms of the Chinese characters. The native syllabary has two forms, known as the *katakana*, and *hiragana*, the former being a more simple form, like our printed alphabet, while the latter is more like our script. As there



PART OF THE GENJI MONOGATARI, SHOWING CHINESE AND HIRAGANA CURSIVE SCRIPT (ELEVENTH CENTURY)

are many different forms of the latter it is much more difficult to acquire, but it has to be mastered by those who wish to read Japanese, since it is the form most commonly used in books and in the press. The *kana* syllabary is constantly mixed with the ideographs to express the sound intended by the latter or to form suffixes used as inflexions. To read Japanese well a mastery of some four thousand characters is essential, and this very few foreign students of the language have ever accomplished. A knowledge of two thousand characters, however, will enable one to make out most of what is in the newspapers and ordinary books. The intelligent student of Japanese must, therefore, master two languages, the spoken and the written, he must learn two syllabaries so as to know them at sight, and he must master the hundreds of ideographs in the various forms in which they appear, from a plain square print to the most abbreviated scrawl, looking like a war of angle-worms, and at the same time get accustomed to a page without either punctuation or division of words, like the ancient cursive writing of the Greeks and Latins. One does not wonder at the remark of the Jesuit missionaries that the Japanese language was invented by the Devil, as the surest way to prevent the introduction of Christianity. To make the situation worse, there remains the persistent refusal of the Japanese people to obviate one of the greatest obstacles to the acquirement of their language by replacing the complicated ideographs by the use of the Roman alphabet, and thus put the language within reach of Europeans. In doing this they would at the same time save six or seven years of every Japanese child's life now wasted in mastering the ideographs before he can read his school books. The only virtue possessed by the written language of Japan is its beauty, and the centuries of practising it have made the nation a race of artists.

JAPANESE LITERATURE

As writing was not introduced into Japan for a thousand years after the foundation of the Empire literature did not begin until then, the first traces of anything in that direction appearing with the establishment of the capital at Nara at the beginning of the eighth century. The Japanese claim that the ancient records of the nation were committed to writing as early as the fourth century, but it is not probable that writing was introduced long before the advent of Buddhism, about the middle of the fifth century, when Chinese influence attained its greatest power. Under the influence of learning developed by Buddhist scholars, literature

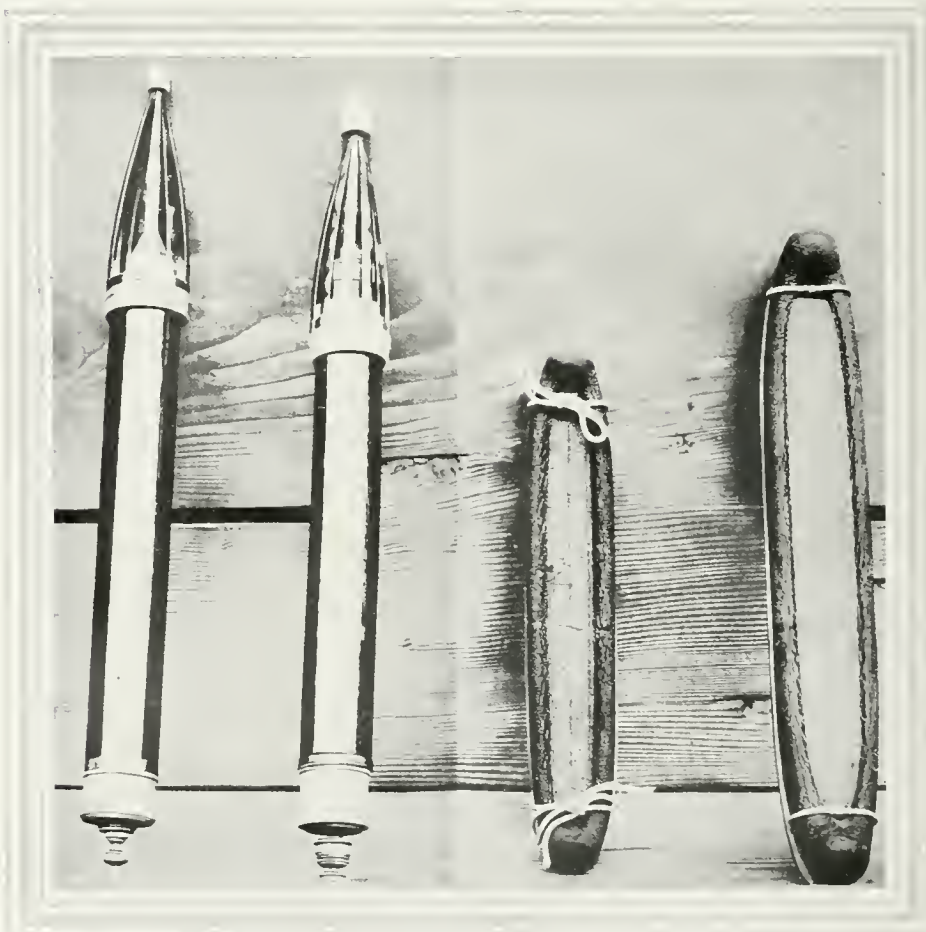


HIHAKU' WRITING (NINTH CENTURY),
BY THE PRIEST KOBO

began to dawn. It must be borne in mind, however, that literature in Japan and Japanese literature are two very different things, as unlike as the Latin writings of mediæval

Europe and the native languages of the nations where these classical compositions flourished. Not for many years after Japan's acquisition of Chinese letters did she make any attempt to express the language of her people in writing. The higher officials of State and the priests had a monopoly of learning, and up to the eighth century all writing was Chinese in form and diction. With the invention of a native script means were at last provided for the expression of Japanese speech and ultimately a native literature.

The earliest existing literary product of Japan is that marvellous summary of treasured tradition known as the *Kojiki*, or Record of Ancient Things, written by imperial command in 712 A. D. Like the Book of Genesis, it is a compilation of preceding traditions, giving an account of creation, the origin of the imperial family, the history of the Japanese people, and the general status of the country down to the era immediately preceding its compilation. It is especially valuable to the student of literature, as it reveals the nature of the earliest literary impulses of the Japanese. It shows that the Japanese people, like those of other nations,



WRITING BRUSHES, WITH CAPS AND DRIED INKS, PRESERVED IN THE SHOSO-IN
TREASURY, NARA (EIGHTH CENTURY)

passed through a period of song and poetry before reaching the age of prose. Nine years after the *Kojiki* there appeared another compilation known as the *Nihongi*, bringing the national story down to the close of the seventh century, but as the volume was chiefly in Chinese it is of value to Japanese literature only because it preserves some examples of ancient Japanese verse. The chief depository of Japanese literature in its beginnings is that wonderful anthology of the Nara period called the *Manyōshū*, or Collection of a Myriad Leaves, wherein the choicest utterances then existing in verse were garnered, and which still remains the most valuable memorial of the intellectual awakening that followed Japan's first intercourse with China. Poets and scholars began now to flock around the Imperial Court and a real national literature was beginning to appear. The native syllabary soon became so improved as to lend itself to a better expression of native speech, and to supplant the foreign ideographs in literature. When the next anthology, the *Kokinshū*, was published in 900 A. D., by order of the Emperor Daigo, it proved to be a collection of songs and poems evidencing a fuller fruition of poetic excellence. The capital of the Empire had moved from Nara to Kyoto, where it became fixed, and during the succeeding four hundred years there was a remarkable development in literature. The nation had done something worth writing about, but not in the way of history or the impulse to epic poetry. These were centuries of serene development, when the ruling classes entered on a period of high culture, refinement, and elegance of life that eventually passed into an excess of luxury, effeminacy, and dissipation. The nation was more interested in poetry than in prose, and the themes of the Muses were petty and restricted, being for the most part love, pleasure, and admiration for nature. The culture of literature in the Chinese language never wholly ceased, especially in history and theology, but the poetry of this time was composed in the pure native language. At this time, too, appeared the first fiction, the *Genji Monogatari* and the *Makura-no-Soshi*, both the work of women; indeed, some of the best literary artists of the day were ladies of the court.

Among the prose writings of this period none is more interesting than the *Tosa Nikki*, a diary of travel, from the pen of one of the most distinguished poets of the day, Tsurayuki, who was Governor of the Province of Tosa, the diary giving an account of his journey from Tosa to Kyoto, written in the purest of native speech. The poet was one of the editors of the *Kokinshū* anthology,



PART OF A SCREEN PRESERVED IN THE SHOSŌ-IN TREASURY AT NARA. CHINESE IDEOGRAPHS ARE DECORATED WITH DOWN FEATHERS OF BIRDS, AND COLOURING (EIGHTH CENTURY)

already mentioned, and the account which he gives of his tastes and experiences in the *Tosa Nikki* is a charming study of the life of old Japan, written in 935. Among the other choice tenth-century classics may be mentioned the *Taketori Monogatari*, or Tales of a Bamboo Cutter; the *Isé Monogatari*, or Story of Isé; and the *Yamamoto Monogatari*. None of these, however, excel the *Genji Monogatari* and the *Makura-no-Soshi*, already mentioned, written by the two court ladies, Murasaki Shikibu and Sei Shōnagon. These works mark the close of Japan's greatest literary epoch. From the twelfth century the country became a battlefield and civil strife reigned to the discomfiture of literature, which, like religion, was banished to temples and monasteries. During this period the Imperial Court ceased to be a political factor in the life of the nation, and with its decline in influence literature suffered. During these five centuries of unrest most of the works written were of politics or history, like the *Heiké Monogatari*, or Story of the Heike War, somewhat like the Wars of the Roses in England; the *Hojoki* by Chomei and the *Tsurezure gusa* by Kenko, which are excellent examples of the forcible and vivacious prose style still possessed by the nation, the last-named work especially opening the way for that literary speech that came into full development in the seventeenth century

and has ever since remained the language of literature in Japan. Here for the first time we find Chinese words being blended into Japanese forms and phrases without doing violence to native modes of expression. But the voice of poetry was not extinct, for in the last half of the thirteenth century another anthology was compiled, known as the *Hyaku Nin Isshu*, or Single Poems of a Hundred Men, which is still one of the most popular volumes of national poetry in Japan. The only form of literary art that much appealed to the ages of anarchy was the dramatic impulse, and so we find that in this period the old religious dances and dramas begin to assume a secular form and motive, as seen in the *Noh-no-Utai*. These strange lyric plays are mostly dateless and probably came from the hands of priests, who may have used them as the Miracle Plays were used in Europe, to interest the uninterested in religion. Comedies called *kyogen* were also written as interludes in the more severe and less interesting sacred drama, and composed in the ordinary colloquial of the day.

After the age of strife was passed and the Tokugawa shogunate established at the beginning of the seventeenth century, there came a revival of the study of ancient records and the writings of the classic age. Led by the example of Ieyasu, the first shogun of the new line, the various territorial nobles established schools for the revival of learning. Mitsukuni, lord of Mito, had a history of Japan, called the *Nihonshi*, compiled by scholars, and later came the *Nihon Gwaishi*, a history of the shogunate. Both these works had great political influence, and eventually discredited the shogunate in favour of direct imperial rule. The elaborate critical commentaries of such writers as Keichyū (1640-1701), Mabuchi (1700-1769), and Motoori (1730-1800) elucidated the ancient annals of the nation as well as its religion and literature. Novelists like Bakin (1767-1840) and Ikku (1763-1831) wrote popular stories that displayed new literary skill. Other noted writers of the Tokugawa period were Takeda Izumo (1690-1756) and Chikamatsu, the Shakespeare of Japan (1652-1724). Most of the fiction was full of offensive elements but the *otogi-banashi*, or fairy tales, were charmingly innocent and humorous, most of which have appeared in English and are familiar to Western readers.

It will thus be seen that the earlier literature of Japan is Chinese in language and script, which attained its dominance between the eighth and the thirteenth centuries. During the ages of strife it was becoming blended with a pure native form in which the ideographs were mixed with native script and the mode of expression essentially true to

the Japanese language in idiom and construction. This achievement was perfect by the close of the Tokugawa period. Then with the fall of the shogunate and the Restoration of Imperial Rule, literature underwent a change and during the last fifty years quite a new school of writers has arisen.

Now, the change that Japanese literature underwent with the dawn of the modern period was in itself largely the means of bringing about the modernisation of Japan, in which literature has had more direct influence than any other single factor. Japan's leading writers were the first pioneers of liberty, individual rights, and constitutional government. And strange to say, the peculiar history of their language had prepared the nation in the best way for expressing foreign ideas in native ways. Used for over a thousand years almost exclusively as a medium for expressing Chinese, the Japanese language turned quite naturally to expressing the thought of Europe with which it had little natural affinity. It is nothing less than astonishing how well this task has been accomplished. Much of the success, however, must be attributed to the marvellous capabilities of the Chinese ideographs in lending themselves to any combination necessary to express all kinds of ideas, foreign or alien. It is almost inconceivable that Western thought could have made such rapid progress in Japan had it not been for this long period of training in expressing native thought through a foreign medium offering facility for every turn of expression and definition. And thus these long centuries of culture in expressing Chinese thought and civilisation united in qualifying the Japanese language for the great work it has accomplished in the modern era.

The history of Japanese modern literature, which is much too long for full transcription here, indicates clearly the various stages through which the thought of the nation has passed in the modernisation of the country. During the past fifty years three distinct influences, marked by as many periods, have been at work on the Japanese mind and conspicuously represented in the national literature. There is first the strong Occidentalising tendency seen for the first fifteen years following 1870. This was followed by some ten years of reaction when the tide set strong towards ultranationalism, owing to the sudden and radical changes taking place. Foreign countries were to be imitated only in a material sense, but in moral standards, religion, refinement, and modes of life generally Japan was to learn nothing from Europeans. The third period began with a fear that Japan was to revert to feudal days and so there was an attempt to introduce the



A STAGE SETTING FOR ONE OF THE ANCIENT DRAMAS, AT THE IMPERIAL THEATRE, TOKYO

individualism of Nietzsche, led by a Dr. Takayama. During all this time the English language was being earnestly studied in the national schools and in private and most of the great English writers were read or translated into Japanese. Herbert Spencer, Mill, Tyndall, Huxley, Bacon, Scott, Dickens, Hugo, Gibbon, Macaulay, and Carlyle were used as text-books in the public schools. Owing to the Germanisation of the army and the medical schools, that language perforce came into use and German philosophers and scientists were also widely read and translated, as well as the works of Tolstoi and other Russian writers. Many Japanese writers now began to imitate British and German models. Mozumé issued a history of Japanese civilisation something like Green's "History of the English People." Hundreds of dictionaries, grammars, and phrase books showed the attention being given to foreign languages. Attempts were made to replace the complicated Chinese ideographs by the Roman alphabet, but Japanese minds proved unable to carry on complicated trains of thought apart from the old idea-expressing media. In Japan, spoken language does not wield half the power that written language does, and so books are always the nation's best teachers. As a famous Japanese writer has said: "The Japanese are earless and tongueless, all eyes." In spite of this, however, the approach of the written to the spoken language is closer than it has been, chiefly through the influence of the public press, which has a habit of inserting colloquial phrases in learned articles. It may be noted here that formal public speeches

were never heard in Japan until modern times, the late Mr. Fukuzawa, founder of the Keiogijuku University, being the first Japanese to attempt it, and his first efforts were delivered squatting on the floor in native fashion. Talk is plentiful enough in modern times, however, but no one pays much attention to it. The press and periodical literature of the day have an immeasurably greater influence than the nation's teachers, and here some of the best minds of the nation have made their mark. But Japan has yet produced no great philosophical thinkers, nor, indeed, any scientific writers of very high merit. The national mind dislikes metaphysical speculation, and has not sufficient regard to the importance of truth to regard science with real reverence. The best writing at present is in the sphere of commerce, finance, and fiction.

Japan has no veteran fiction writers such as are to be found in England, France, and the United States. Public taste is so fickle that the lion of to-day is forgotten to-morrow, and the career of even the greatest is but short-lived. Thus a novelist has no incentive to essay anything worth while. He usually tries to meet the taste of the moment and make what hit he can in the time available. This is, perhaps, due to the fact that the majority of Japanese readers of fiction are students and leisure-loving housewives, the intellectual class as yet showing no appreciation of fiction. Formerly such was the case in regard to drama and the theatre, but histrionic art is now recovering and beginning to command the respect of minds jaded with the boredom of daily business. The



JAPANESE "GEISHA"

novel has yet to win readers from the more influential classes, and hence it is forced to move in a limited area of love and the hackneyed tales of *ronin* and vendetta. Indeed, very few Japanese novelists can live from their works; they have to make up the deficiency of income by doing hack work for the press and periodicals. The most successful of recent Japanese novelists have been Soseki Natsume, born 1867; Roka Tokutomi, 1868; Katai Toyama, 1871; Koda Rohan, 1867; Mori Ogai, 1860; and Dr. Tsubouchi, 1858. These men have won fame amidst a host of lesser lights who died poor and mostly unremembered. Yet the greater writers have stuck to their pens with true literary spirit and persisted in their art with genuine artistic zeal. The work of the writers of fiction has done more to mark the break between feudalism and the new Japan than any other force to be reckoned with. Tsubouchi's "Essentials of Fiction," published in 1885, asserts that the most important element in the novel is passion, to which circumstances and customs must be subject. This affirmation, which the novelist faithfully practised, was in radical opposition to the old national fiction, as represented by Bakin, where passion was always subdued to conscience and reason in an artificial manner never seen in real life. The motive of the old fiction was moral and didactic; that of the new is truth.

Taking modern Japanese fiction as a whole it resolves itself into three schools, all revealing the effect of corresponding influences in European literature: the Classicists, the

Realists, and the Naturalistic School. In the Classic School Ogai was the leader, all his work being highly polished and revealing evidence of the ease that comes of toil. One of the greatest writers of the school of Realism was Hasegawa, who died in 1909. He was a disciple of the Russian school of writers, and was followed by Oguri Tayo, Kosugi Tagai, and Yanagawa Shunyo, as well as Koyo Ozaki. These writers were not all quite the same, though they represented the same school. Hasegawa was humanistic,

using art on behalf of life, while Ozaki was æsthetic, devoted to art for its own sake. These writers sought to bring literature into closer relation to life, though as yet no separation was made between the individual and society. The fiction of Koda Rohan lays emphasis on the invisible elements of life as the more important; he attached more importance to insight than to observation. Thus, the Realistic writers were in some measure adherents of idealism. And then came the Naturalistic School represented by writers like Kunikida Doppo, who died in 1908, followed by Toson, Masamune Hakucho and many others, who produced stories in a fascinating style and bold, unconventional treatment, which charmed the young and unsophisticated while causing the sober to frown. Most of these writers, like their masters in France and Russia, were born in the provinces, gave up unfinished the dull routine of school life, and took to Bohemian ways of existence as aspirants to fame, being usually connected with some journal or another. Besides these there are numerous productions representing the political novel, the historical novel, the domestic novel, the chivalrous novel, the social novel, the psychological novel, the tenderloin novel, and the novel of lower class society. In fact, every side of the national life is set forth in the popular fiction of the day, a good deal of which is a mere reflex of European literature. Its most significant feature is the break with the past which it shows and its intense interest in the present, with a consequent greater breadth of range and a deeper seriousness in art.



A STAGE SETTING

It must not be imagined, however, that the change has been wrought without great sacrifice. Some of the naturalism is too base and the realism too gross to be quite wholesome. The artificial marvels of the old fiction have not been replaced by the normal and the ordinary; too often the fabulous has been replaced by the hideous, and mystery by sensuality. The recognition of natural passion in fiction has not solved the problem of its reinstatement. The cosmic force of love is recognised but the legitimate form of its self-expression is not yet found to be a spring of service and a source of joy in harmony with the spirit of the universe.

Looking back over the history of Japanese literature as a whole, one can not say that it abounds in a content of living interest to Western readers. It springs from customs, events, personages, places, and traditions so utterly different, and from motives of action, of praise and censure, so widely at variance with those dominating Western civilisation, that on reading it the Western mind finds little in common and a marked absence of appeal. To us it seems strange and alien, dwelling painstakingly on minute details that no Western mind would pause over, indulging in the most prolix verbosity, dealing freely with matters forbidden by the more delicate taste of the West. It nevertheless records the social, religious, and political history of the Japanese people, and for this reason it may be profitably studied, though the reader will look in vain for intellectual creativeness or invention. The whole history of Japan appears as an unbroken imitation



YURAKU-KWAN THEATRE, TOKYO



A PROVINCIAL ACTOR

of other nations, until the genius of the native mind now lies in the appropriation and refinement of the gains and acquirements of others. Yet Japanese literature attained to considerable excellence in art and mode of expression, as did the nation's other arts, particularly in poetry and drama.

POETRY AND DRAMA

JAPANESE poetry remains the most original of the nation's literary efforts. Much Chinese poetry has been written by the Japanese, just as much Latin verse has been composed by English scholars and students, but unlike Japanese prose, the national poetry has never been subjected to Chinese ways of thought and expression. With but little variation the oldest Japanese song recorded is still the model for the versification of her

poets. Its first characteristic is its extreme brevity, and the whole range of poetic literature includes nothing in the way of an epic or even a narrative poem, all such attempts being as brief as they are few. When the Japanese speak of poetry they always mean a tiny verse known as a *tanka*, or *waka*, of five lines, containing in all thirty-one syllables, the first and third lines each making five and the others each seven syllables: *a-b-a-b-b*. But short as it is, it has the divisions of a sonnet, the first three lines forming the "upper" and the last two lines the "lower," a slight break occurring in the sequence and a slight pause marking it in the reading. In expression it is extremely compact and limited. The native idea of poetry is as a verse of mere suggestion, a gem of thought from which a world of meaning can be



OPEN-AIR STREET THEATRE DURING A FESTIVAL

inferred. If the poet can thus produce a gram of radium he is successful, but if his efforts require artificial illumination he is only a scribbler. The following is the oldest Japanese poem in existence, sung at the opening of the bridal palace of the gods:

Yakumo tatsu;
Izumo yae gaki;
Tsuma gomi ni
Yae gaki tsukuru:
Sono yae gaki wo!

(Many clouds appear:
Eightfold clouds a barrier raise
Round the wedded pair.
Manifold the clouds stand guard;
O, that eightfold barrier-ward!)

In Japanese poetry there are remarkable eccentricities such as redundant expletives, phrases called "pillow words" and "introductions," into which we can not now go. The subject matter of poetry is usually some simple and serene emotion in reference to man or nature. It always has a dainty quality and a meditative mood. It is marked by a lyric character that is often idyllic, like a painting on a Greek vase; conventional, suggestive, and impressionistic, as is the national pictorial art. The *waka* metre is not the only form of Japanese verse. There is a mode still more brief known as the *hokku*, consisting of seventeen syllables, and formed like the first three lines of the *tanka* verse. It is used mostly for an expression of wit or an epigrammatic statement. For long poems the Japanese poet adopts what is called the *naga-uta* mode, consisting merely of a series of *tanka* verses, like a sonnet sequence. In this as in all other

forms of Japanese poetry, there is nothing to distinguish it from prose except the regular alternation of five and seven syllables. There is neither rhyme, tone, alliteration, accent, nor quantity. Nearly all Japanese have a knack for poetry and try verse composition some time or other, but more especially when they come to die, that being the most dignified form of farewell to life.

Various attempts have been made to modernise Japanese poetry by making

translations from Western poets into Japanese, but none of them have been considered successful. The Bureau of Poetry maintained by the Imperial Court in Tokyo holds a poetic symposium annually at the beginning of the year, when efforts in verse are submitted by any one who wishes, the number sent in being usually over 25,000, of which a certain number are selected by experts for submission to the Emperor. The late Emperor was himself a poet of no mean distinction, and the art greatly flourished under imperial patronage.

The works of all the more famous of the ancient poets are included in the three anthologies already mentioned in the course of this essay. The editor of the anthology known as the *Kokinshu*, Tsurayuki, was a distinguished poet himself, and one of the gems from his pen reads:

Sakura chiru,
Sono shita kaze wa
Samukara de
Sora ni shirarenu
Yuki zo furikeru!

(The white flakes fall;
Yet 'neath the trees
Unchilled the breeze;
For over all
A snow that never knew the sky,—
Fair cherry petals — fall and die!)

The following is a translation of a verse of *waka* by Prince Aki of the eighth century:

Blue depths to-night are as the sea
Where clouds like billows rise,
Through which the moon glides gracefully
To portals in the skies:
O Love, thus you
Elude me, too!



JAPANESE ACTORS OF THE IMPERIAL THEATRE, TOKYO, IN THE COSTUMES FOR AN ANCIENT DRAMA

One or two examples may now be given from modern poets, the following being from the pen of the late Emperor of Japan:

Fuyu fukaki
Neya no fusuma wo
Kasanete mo
Omou wa shizu ga
Yosameru nari keri!

(On winter nights when wild winds blow,
And double care keeps out the cold,
I think of those exposed to snow,—
The nameless, homeless poor and old!)

These examples of modern Japanese poetry may fitly conclude with one by the late Empress of Japan:

Midaru beki
Ori wo ba okite
Hana-zakura
Mazu emu hodo wo
Naraiteishi gama!

(Flowers have their smiling time,
And then their time of wilding:
Girls should have their smiling time,
And never reach their wilding!)

It will thus be seen that Japanese poetry can not be regarded as a means chosen for sounding and recording any very profound spiritual experience. But if it can not be ranked among the great achievements of the human intellect, it has, nevertheless, a degree of art and ideal that is truly pleasing, and if it has given solace to the mind of the nation at all times, the unappreciative foreigner should not despise it as unworthy of attention. The poetry and romance of the nation have had much influence on the drama and the theatre, as we shall now see.

Japanese drama originated, as drama did elsewhere, in the performance of the ancient folk-dances and folk-songs known as the *kabuki*, which go back beyond the dawn of history, probably having a religious origin, as in Greece. Nations have always been able to write poetry before prose, to sing before they could speak, and to dance before they could act with any histrionic art. This dance that gave rise to the theatre was a folk-dance and consequently different from dancing as a social amusement, a distinction which led to the ballet in Europe as to the geisha dance in Japan. The motive of the histrionic dance, however, was as sacred as the religious dances, being an attempt to give expression to an undying passion, a bit of eternal reality which is the source of all true dramatic inspiration. At just what period the *kabuki*, or secular dance, separated from the *kagura*, or sacred dance, no one now knows, but the existence of the Noh, or Lyrical Drama, indicates a brave attempt to preserve the sacred dignity of the art, keeping it just above the status of an operetta.



A GREAT JAPANESE ACTRESS, MISS RITSUKO MORI, AN IMPERIAL THEATRE STAR

The first Japanese theatre is said to have appeared in the land of Idzumo where the immigrants from northern China first settled, and to a lady is ascribed the honour of the invention. Tradition has it that the Lady Kuni left Idzumo and came to Kyoto, where she set up a stage near Shijo by the sea. A remarkable feature of histrionic art at this early period was that most of the performers appear to have been females, who adopted male attire for stage purposes. Kuni and her troupe eventually invaded Yedo, the capital of the shogun, and set up a stage in 1603, just about the time when the English stage was coming into prominence. The popularity of the new form of art and

entertainment soon led to its having imitators, and other theatres began to be set up in Yedo. It is probable that the acting of the period was not much above the puppet shows that were already in vogue in such centres as Osaka. The puppet shows were, of course, the precursors of the modern theatre, but to a woman is given the distinction of having dared to perform in person what the public had been accustomed to see done by puppets. The puppets moved on wires and acted their parts to the sound of what was called music, accompanied by a kind of song, called *yoruri*, explaining the meaning of the action. Those familiar with Japanese plays and stage life will be inclined

to conclude that the actors of the nation not only imitated the puppets, but have, in fact, never gotten away from that style of acting, the stiff, unnatural, and even grotesque movements of the actor being much after the manner of the *ayatsuri*. Thus what was first a mere imitation of the puppets for the amusement of the audience, has now become a convention from which the actor has great difficulty in breaking away.

The Japanese theatre is usually a modest oblong building constructed of plain, unvarnished wood, the only adornments being a ponderous roof and glaring wooden posters outside, illustrating the plays to be performed within. The interior is divided, first, into the pit, or *hiradoma*, covered with square spaces, each capable of seating four persons on a matted floor, while on either side are two-storied galleries with the best seats arranged in a boxlike fashion. Over the entrance, on a level with the second tier of boxes, is a single gallery, which is the cheapest portion of the house. The stage, facing the door, has two curtains, the outer one to hide the whole when the play is not in motion, a very elaborate affair usually presented by some patron and bearing his name, and the second, or drop curtain, to let down during a change of scene. Entry to the stage is obtained not only from the wings but by a long gangway known as the *hanamichi*, or Flower Path, so called because the original intention was to afford persons who desired to make presents to the actors, easy access to the stage. It runs across the entire pit and has the advantage of enabling long processions characteristic of feudal plays to be seen by the audience, and also permits two scenes to be acted simultaneously, the one on the stage engaged, and the one on the *hanamichi* approaching. In the centre of the stage is a large revolving platform, which allows one scene to be in preparation while another is being acted, and then suddenly to be brought into view without dropping the curtain. The European stage appeals to the mind like a framed picture, but the Japanese stage does not attempt to be different from ordinary life or to be apart from it. But the Japanese theatre is becoming more and more like those of Europe, the best one in the capital having dispensed with the revolving stage and the *hanamichi* altogether. After the manner of the theatres of ancient Greece the Japanese stage has a star-trap, or *seridashi*, a hollow place under the stage with a trap-door to it, into which the actor can drop when he desires to disappear, and from whence he can also rise as an apparition. The *kurombo* is another curious feature of Japanese theatrical personnel, the term being applied to

a person draped in black and supposed to be invisible, whose duty is to assist the actors by carrying lights or removing corpses killed in stage action. The scenery and dress of the Japanese stage is accurate and, as a rule, of high artistic excellence. When the time arrives for the play to begin two pieces of wood are clapped together.

Generally speaking, the accessories of a Japanese stage do not appear to be far removed from the unimaginative scenery of the stage in Elizabethan England. In fact, such plays as the Noh can only be compared to the *Moralities* and *Mysteries* of pre-Shakesperian times. Yet one is forced to admit that, so far as histrionic art goes, mediæval Japan reached a higher level than the England of the same period, for the English mediæval plays were somewhat rough and vulgar, displaying little of that beauty and refinement still evident in the Japanese lyrical drama, yet the English plays were much more infused with whole-hearted human passion and natural action. What the Japanese play lacks in dramatic action is compensated for by grave and graceful motion and sober, pleasing drapery.

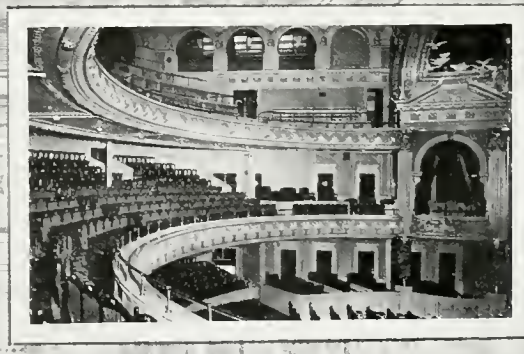
Theatre-going in Japan is a long-drawn-out affair, lasting most of the day. In old Japan the play lasted all day, but in these more active days it lasts from two in the afternoon until ten or eleven at night. Every theatre is surrounded by restaurants of all kinds and playgoers send out for food and refreshments as wanted. Actors were formerly all of the male sex, as the profession deteriorated after its foundation by a woman,

but in recent years the profession has regained respectability and women are permitted in the best theatres, some of the actresses displaying considerable ability, yet nothing to that seen among European actresses. The raising of the Japanese theatre to a place where respectable persons might be found was managed by the theatre managers themselves, and in a very simple way. After the opening of Japan to foreign intercourse many foreigners of importance began to visit the country, whereupon the theatre managers adopted a custom of inviting foreigners to their theatres, including Ministers and Ambassadors as well as foreign princes who chanced to visit Japan. In most cases these invitations were accepted. When General Grant and the grandson of the German Emperor visited the Shintomi Theatre, no one could say that such places were unfit for high-class patrons. From this time the upper classes began to patronise the theatre and the Imperial Court invited great actors to perform before distinguished assemblages in private. Having attained unto imperial favour the Japanese theatre had nothing more to do toward retrieving its respectability.

As to the plays of the modern Japanese theatre they are legion, and represent every side of human life from ancient to modern times. The most aristocratic play is that called the *Noh*, a kind of operetta consisting of singing and dancing, being, as has been already pointed out, a descendant of the ancient *kugura*, or temple dances. There are hundreds of Noh dramas in existence



THE KABUKI-ZA, A JAPANESE THEATRE AT TOKYO



IMPERIAL THEATRE, TOKYO—THE UPPER FOYER AND ENTRANCE TO DRESS CIRCLE—THE FOYER—THE RESTAURANT ON THE DRESS CIRCLE FLOOR—THE AUDITORIUM

most of them written by priestly authors prior to the sixteenth century. No scenery is used on the stage where they are performed. A chorus sits on the ground to one side and there is a simple orchestra at the back, with a large painting of a pine tree. But the robes worn in the Noh drama are very elaborate, being triumphs of artistic skill. Some of these robes are the property of ancient families and have been preserved in the same family for centuries. To relieve the monotony of Noh plays there is the *kyogen*, a kind of farce used as an interlude. The common people, however, had small appreciation for these plays. They preferred the puppet shows and later the *kabuki*, or popular drama, of which there are numerous varieties both ancient and modern. Two classes of plays predominate, however, the *jidai*, or historical dramas, and the *sewa-mono*, or comedies of contemporary life. There is hardly any important incident of national history that has not been dramatised and in the most realistic manner, like the *Chushingura*, or League of the Forty-seven Ronin, the *Soga-Kyodai*, and others. The last named is based on the tale of two brothers who seek revenge on the murderer of their father. The *Sendai Hagi* is based on the attempt to poison a child of the Lord of Sendai, and the *Kokusenya* on the story of the expulsion of the Dutch from Formosa by Koxinga in the seventeenth century. Among modern playwrights the most noted is Dr. Tsubouchi, a university professor of literature. His *Maki-no-kata*, an historical drama based on the efforts of the Hojo family to obtain the shogunate for their house, is praised by Japanese critics as a clever depiction of a woman's intrigue for the sake of her child. Some of Shakespere's plays, such as "Othello" and "Hamlet," have been translated and acted in Japan, with indifferent success. Japanese forms of Ibsen's plays and those of George Bernard Shaw and Sudermann have been more popular, though it is a question whether such plays are really understood by a Japanese audience. The theatres have some difficulty in fulfilling police regulations prohibiting plays with so-called "dangerous thoughts"; and consequently no great plays dealing with modern life and its difficulties appear on the Japanese stage. The mind of the nation is devoted to a worship of its own past, as a reaction against the modern tendency to abandon Oriental for Occidental ideals. But in the pull of the dead past and the pull of the living present there is an odds which no devotion to the past can overcome. Japan is destined to break away from her antiquated notions of drama as surely as she is abandoning her old modes of commerce

and industry, and if she can carry with her the imperishable good, to the rest she may say farewell with a will. When Japan becomes more imbued with a world-consciousness of culture she will move on in literature and drama to a future that may easily outshine her past.

THE IMPERIAL THEATRE, TOKYO

THE Teikoku Gekyo, or the Imperial Theatre at Tokyo, may truly be described as a Japanese national institution, designed to foster the highest art, supported by the most prominent art patrons of the country, and conducted under those auspices which raise such an institution above the ranks of mere commercial enterprises. It is famous the world over as the home of Japanese dramatic art, and as a theatre it unquestionably occupies the same place in the nation as the greatest theatres occupy in Great Britain, France, Germany, or Italy. Attendance at the Imperial Theatre is almost obligatory on all visitors to Japan who wish to see the best performances, not only of modern Japanese plays and foreign productions, but of the old lyric dramas for which the Japanese have long been famous. At the Imperial Theatre the visitor sees nothing but the best, and the most characteristic plays, dances and other features of the dramatic art of the country, performed by the best and highest paid artists in the Orient.

As stated before, the Imperial Theatre is not so much a commercial enterprise as it is the national home of the drama. A school of acting is maintained, actors and actresses are trained from youth, and to appear on the stage of the Imperial in one of the great productions is to have the seal set on the artist's fame. The Imperial Theatre in every sense maintains the highest traditions set by its founders. Directing the theatre there is, of course, a body of the best known business men and art patrons of Japan. The joint-stock company which controls the institution was established in 1909 under the encouragement of the late Prince Ito, Marquis Saionji, the late Count Hayashi and others, equally well known for their fervid interest in affairs of state, and in the encouragement of the fine arts. The company was formed with a capital of Yen 1,200,000, divided into 24,000 shares of Yen 50 each. A magnificent site for the great new theatre was secured at No.1 Yuraku-cho, Tokyo. This position is in front of the Babasaki Mon, a gateway leading to the Imperial Palace, and is near the Hibiya Park, in the most attractive part of the national capital. The theatre is adjacent to the Central Railway Station and is also easily reached from other points of interest to the

visitor to Tokyo. The building was completed in February, 1911, at a cost of about Yen 1,000,000, and was formally opened in the following month.

The beauty and excellence of the building can not be denied. Before the plans were drawn the directors had placed before them the best ideas of foreign designers, and the Superintending Architect, Dr. T. Yokogawa, was sent abroad to investigate the construction and design of theatres in Europe and America. Himself a Master of Technology, Dr. Yokogawa was readily able to assimilate the good points of foreign theatres, and to incorporate with them Japanese ideas in the design and building of the Imperial Theatre. The building is both fire-proof and proof against damage by earthquake. The preparation of the site comprised the driving of 15,000 piles, 18 to 21 feet long, into the ground, and binding them into a solid mass with reinforced concrete filling. The foundations of the building were then laid 15 feet below the surface of the ground, and upon them was erected the steel frame, which is filled in with bricks. The design is of the Renaissance, and the whole conception is pleasing to the eye. The building measures approximately 102 feet wide along the front elevation, this width extending to 150 feet in the central part. It extends back from the street a depth of 198 feet. The front of the building is 52 feet high, but above the stage the roof is raised to a height of 66 feet. Surmounting the front arched roof is the figure of the God of Good Luck. The entire outside walls of the theatre are faced with pure white tiles from Imbe, a place in Bizen Province famous for its manufacture of tiles. There are many fine points about the building which must be seen to be appreciated. The interior decoration is delicate and tasteful, every window and stairway, or appurtenance of the building being carried out in good style, and there is a profusion of marbles, statuary, and pictures to heighten the effect of the *tout ensemble*. No trouble or expense has been spared in the lighting and ventilating arrangements, which are most modern in their planning. For instance, the Imperial Theatre maintains its own plant for cooling and heating the atmosphere, and for drawing off vitiated air, which is entirely renewed every ten minutes by mechanical appliances. The electrical current for lighting purposes is accumulated in storage batteries in the machine rooms, and it is impossible for the theatre to be thrown into darkness through any sudden failure of the city light service. It may be added that all these features of the internal arrangement and maintenance of the theatre were carefully studied by experts sent abroad specially

to investigate such questions, and everything of a mechanical nature, whether for the control of the footlights, or otherwise, is the result of close attention to what is the best and latest. The same applies to the work which has been done to make the Imperial Theatre thoroughly fireproof. In addition to the usual asbestos curtain before the stage, the theatre is divided into three sections, each of which can be isolated from the others instantaneously and automatically by contrivances which operate when fire raises the temperature. As to the seating arrangements, they are, naturally, installed mainly with the idea of the comfort of the Japanese patrons, but it may be said at once that foreigners are accommodated in boxes, or with chairs which leave nothing to be desired for ease and for convenience of view. The internal arrangement of the Imperial Theatre, is, in fact, a great tribute to the cleverness of the Japanese for blending their own requirements with those of the foreigners. An evening spent at the Imperial Theatre will disclose that nothing is lacking to promote the comfort and enjoyment of the visitor, Japanese or foreign. There are four floors, or tiers of seats, arranged in conformity with the European plan for a horseshoe-shaped auditorium. Ranged to left and right of the first and second tiers are the boxes, private and public, including the special boxes for dignitaries. The seating accommodation is for 1,700 persons.

The proscenium is 48 feet wide and 24 feet high, the stage itself being raised about six feet. All curtains and backs are raised without being folded or rolled. A revolving stage, 48 feet in diameter and operated by a 12 horsepower electric motor is provided, and is controlled by specialists who were sent to Europe and America to study mechanical arrangements of this nature in modern

theaters. The general appointments of the Imperial Theatre are remarkably fine. Quite apart from all modern conveniences, such as toilet rooms, retiring rooms, smoking rooms, lounge, and bar, there is a well organised catering department having the appointments of a first class restaurant which is always well patronised by the Japanese and foreign visitors. In addition there are dining and refreshment rooms for each floor. The main restaurant is a handsome room, its walls hung with pictures by such a renowned artist as Mr. Yeisaku Wada. In the retiring rooms adjacent are also magnificent paintings, one particularly fine series in oils being morning, noon, and evening scenes by Mr. Saburosuke Okada, another famous painter. The theatre also contains a post and telegraph department, medical room, telephones for the use of the public, and many more similar thoughtfully provided conveniences.

In the School of Art conducted by the Imperial Theatre, actors and actresses, vocalists, musicians, and dancers are trained, so that the standard of talent to be presented to patrons is always maintained according to the highest traditions. In this school there is a stage for the novices, apart from the second stage on which rehearsals take place. A large number of pupils attend the school, and as they qualify they are introduced into the performances as their services may be called for. By May, 1917, there were many fifth-year graduates of the dramatic course placed by the Directorate of the theatre. A widely diversified programme of entertainments is presented at the Imperial Theatre throughout the year, including ancient and modern dramas, dances, and so on, as well as cinematograph, and opera. The theatre is available under special arrangements for foreign companies, and many excellent

touring companies have been seen there. Occasionally the Japanese artists coöperate with local foreign talent in producing operas and similar works, and one may often see adaptations of foreign drama staged in the best style and acted by artists whose fame has spread far beyond Japan. Many of the Japanese performances start about four o'clock in the afternoon, and extend throughout the evening, but as a rule the performances are timed as they are in foreign countries.

The Directorate of the Imperial Theater comprises Baron Shibusawa, Honourary Adviser; Baron Okura, President; Mr. K. Yamamoto, Managing Director, and Messrs. M. Fukuzawa, T. Masuda, T. Tanaka, T. Tezuka, R. Fujiyama, and S. Tsunoda, Directors. Messrs. K. Murai and C. Yasoshima are the Auditors. The great success which has attended this undertaking is admittedly largely due to the highly capable management of Mr. Yamamoto, whose name is familiar in theatrical circles throughout the world. Mr. Yamamoto has a keen sense of the dignity of the Imperial Theatre, and it is his constant endeavour to maintain the highest standards of excellence in the conduct of the institution and in the presentation of the best that money can provide in the way of art. Very high salaries are paid to the leading actors and actresses. It is, of course, impossible to regard the Imperial Theatre in the light of a business concern purely and simply, nevertheless the financial situation is a very satisfactory one. For the half-year ended July 31, 1917, the gross earnings were Yen 349,530 and the expenses Yen 268,753, leaving a net profit of Yen 80,777. A dividend of Yen 1.13 $\frac{3}{4}$ per share was declared, Yen 4,100 was added to the reserves, and after distribution of other sums, Yen 12,000 was carried forward.





THE HOSPITAL AND HEADQUARTERS OF THE JAPAN RED CROSS SOCIETY

XXIV. THE PROGRESS OF MEDICINE IN JAPAN

By PROF. S. KITASATO, M. D., F. R. S., London, etc.

HISTORY—INSTITUTIONS FOR MEDICAL RESEARCH—MEDICAL SOCIETIES AND PERIODICALS

ROME was not built in a day," says an often used proverb, and the same is true of the science of Japanese medicine which is to-day the result of a slow but steady growth that has extended over two thousand years from the time when intercourse between Japan and the Asiatic continent had its first misty beginnings. An external culture and Buddhism were then introduced into the country, and the seeds of medical knowledge were sown on Japanese soil, together with the seeds of various other sciences and arts.

As a result of the new knowledge, and of its influence on the life of the people, a body of laws, which is known as the "Taihorei," was drawn in the reign of Mommu Tenno (701 A. D.), in which some articles were devised to regulate and control the practice of medicine. From those laws we learn that even at that time distinctions were already made between the practice of medicine, surgery, pediatrics, ophthalmology, and otology, acupuncture and massage. Medical students were educated at the public expense

and their qualification was finally determined by a kind of state examination. The progress of medicine, however, was impeded by the fact that it, as well as other branches of learning, were usurped by Buddhism. This continued to be the case until the beginning of the Kamakura period (1186–1315 A. D.), when a revolution against the general government was attempted. The result was that both religion and medicine gradually began to assume features that were more in consonance with the national character. Modifications and improvements were made along lines of practical knowledge which led to corresponding improved methods of treatment. Quite a number of voluminous medical works were also published, which embodied the results of previous experiences, so that the medical practitioner had a reliable source of information to guide him and to extend his knowledge.

In the time of Oda-Yoyotomi (1568–1614 A. D.) the medical school of Japan had to meet a strong current of Western medical learning, whose first indications were to be

seen coincident with the introduction of Christianity in Japan in 1549. It led Japanese medicine to take a quick gait toward the progress in surgery, which was known as "Nambanryu," meaning the "System of the South." The long years of internal peace and quiet of the Tokugawa reign (1615–1867 A. D.) greatly favoured the spreading of Chinese medicine and of Chinese medical methods in Japan, which were strongly supported by the respect and popularity which Chinese ethics, and the moral precepts of Confucius and Mencius, found among the learned and educated classes of Japan. The fact, however, must not be overlooked that at the same time the Japanese school also had produced physicians of note and high repute, who, however, formed a class of their own.

In the further development of Japanese medicine, the Dutch medical learning, introduced in Japan about 1641 A. D., was greatly studied and investigated by the followers of the Japanese school. In the latter part of the Tokugawa reign, great physicians



PROFESSOR S. KITASATO, M. D., F. R. S.
(LONDON)

appeared, such as Ranka Mayeno and Gempaku Sugita, who were the harbingers of the further progress and enlightenment of the Meiji Era. They saw the imperative necessity of employing the empiric methods of the new school, and of abandoning the old deductive methods. The propagation of these new methods was greatly helped by the work of Dr. von Siebold, a German physician who came to Nagasaki in 1826, and to the Government, which established a Translation Bureau in which many of the leading foreign medical works were translated, and thus made accessible to all. But the advocates of the old Chinese and Japanese schools succeeded in getting the governmental authorities to prohibit the propagation of the new learning in Japan, and accordingly a corresponding prohibition law was enacted in 1849. Strange to say, it was in the same year that Jenner's method of vaccination was introduced in Japan. The followers of the European school carried on their work and studies in secret, in the guise of vaccinators. It was not long, however, before the prohibition was rescinded, and a number of medical schools came into existence toward the close of the Tokugawa reign. The most famous of them were the

Tokyo-Igakkwan, which later was reorganised as the Tokyo Imperial University Medical College, and the Seitokukwan in Nagasaki, later reorganised as the Nagasaki Medical School.

At the beginning of the Meiji Era, Dr. William Millis, an English physician, who was then physician to the British Legation in Tokyo, applied for a position in the medical service of the imperial army which was then contending with the shogunate forces. Afterward, he was engaged in the organisation of the Medical College and Hospital of the Tokyo Imperial University. Later on, the German school of medicine, which appears to have been better adapted to the genius and bent of mind of the Japanese, took the place of other schools that had hitherto existed. In the fourth year of Meiji (1872), Drs. Muller and Hoffman were engaged to take the place of the English physician, and since then numerous German instructors have followed, to be attached to the Tokyo Imperial University as professors. The last of these were the late Dr. von Barlz and Dr. Scriba.

Medical education in Japan consists of two classes; namely, university and medical school. Both require a four-year course of study, the only difference between them being the two years of preliminary study in the higher schools, besides the five-year course of the middle schools and six years in the primary school. Graduates of both are qualified and licensed to practise medicine. There are at present four Imperial Universities: namely, in Tokyo, established in 1879; in Kyoto; in Sendai (the Tohoku Imperial University); and in Fukuoka (the Kyushu Imperial University). There are still two other colleges, such as the Osaka and the Keiogijiku. The Osaka Medical College is the district governmental institution and the other is the private college of the Keiogijiku University. The medical schools are the Chiba, the Sendai, the Okayama, the Kanazawa, the Nagasaki, the Niigata, the Kyoto, the Aichi, and the Kumamoto, and the Tokyo Charity Hospital Medical School.

INSTITUTIONS FOR MEDICAL RESEARCH

THE Kitasato Institute for Infectious Diseases, established in 1892, was the first of the kind to be organised in Japan. It has been due to this institute that some of the world-famous discoveries were made. Among these may be mentioned the discovery of plague bacillus and dysentery bacillus; contributions to the serum therapy of tetanus and diphtheria; improvements in the preparation of pure calf lymph; establishment of rational method for prevention of plague and of other infectious diseases; discovery of intermediate hosts of lung and liver flukes and other biological studies of parasites; improvements in the preparation of efficacious sensitised typhoid, cholera, gonorrhoea and other vaccines. Two of the most widely known discoveries made in Japan lately are the determination of the causative agent of Schistosomiasis, that was made by Professors Fujinami and Katsurada, and of Weil's disease, or hemorrhagic jaundice, that was achieved by Professors Inada and Ido of the Fukuoka Imperial University. They named the germ as "*Spirocheta icterohæmatologiae*." Full details regarding the discoveries and work referred to above may be found in medical literature throughout the world, and therefore further reference here will be omitted.

MEDICAL SOCIETIES AND PERIODICALS

THE first among the medical bodies is the Association of Physicians, of all Japan, which watches over the rights and interests of the profession. There are more than forty-five medical societies and associations for scientific purposes, which all have their own journals. There are over sixty medical periodicals, all of which are published in Japanese, but journals in foreign languages are published periodically by the Tokyo, Kyoto, and Kyushu Imperial Universities. Another periodical in the European languages is published by the Kitasato Institute for Infectious Diseases, entitled "*The Kitasato Archives of Experimental Medicine*."





GOLF LINKS ON ROKKO MOUNT

XXV. THE FOREIGNER IN JAPAN

By ROBERT YOUNG, Editor and Proprietor of "The Japan Chronicle"

IN books on Japan it is not uncommon to find it assumed that the remarkable changes which have taken place in the course of the last sixty years have been the product solely of Japanese initiative and energy, and that changes of such a far-reaching character should have been possible in so short a time is quoted as proof of the marvellous capacity of the Japanese. What may be justly credited to the Japanese is their receptivity and openness to new ideas, their readiness to learn from others, and their facility for adaptation. This has been evident throughout their history. From China or Korea the Japanese received their script, their art, their philosophy, their methods of government, and for the great mass of the people their religion. When, a few centuries later (in 1542), the first Europeans appeared on the scene, in the guise of three Portuguese adventurers, followed by Portuguese missionaries and traders, the Japanese were found equally receptive. The adoption of Western firearms revolutionised the art of war. It was to the Portuguese that the castles which played so great a part in those troublous times owed their architecture, and when Nobunaga, the great warrior of the sixteenth century, reared his famous castle at Azushi in the Province of Omi, "he placed the Christian God [by which it is supposed is meant a crucifix] on

the top of the keep." The Christian religion of the Catholic variety, with all its intolerance, was introduced and spread rapidly; it might even have supplemented the Buddhist religion, which it so much resembled, had it not been for the suspicion aroused by the aggressive designs of the Portuguese in the East and the interference of the priests in Japanese politics. It was in this period that the Japanese began to take interest in over-sea trade, and when a Kentish sea-captain named Adams, pilot or sailing-master of a Dutch vessel, arrived in Japan in 1600, with the only remaining ship of a fleet that had set sail originally for the purpose of trading to Spanish America, the Japanese eagerly learned from him the art of building sea-going vessels that would be capable of something more than coasting voyages.

Dutch and English traders arrived in Japan in the early years of the seventeenth century, and were warmly welcomed. The English withdrew after a somewhat chequered business career of ten years, but the Dutch remained, and when Christianity was proscribed and the Portuguese expelled, the Dutch were allowed to remain, quarters being given them in Nagasaki, where a small trade, limited to two or three ships a year, was maintained with the West. For more than two centuries Japan led a secluded life. Unfortunately for her this was a period of

great progress in Europe, in which science gradually extended its range, the distant places of the world were explored, new products were discovered or invented, and steam began to revolutionise industry. Japan of her own will remained outside the circle of culture contact, and when the country was reopened to the world in the middle of the nineteenth century Japan was found to be still at a stage of civilisation which other nations had long passed. Yet during all that time the small Dutch colony at Nagasaki had been a window through which gleams of the light of science came from the Western world. Some members of the Dutch factory were men of considerable learning, and the colony from time to time numbered among its members German scientists who desired to study conditions in Japan. To them came Japanese secretly, thirsting for knowledge, and the elements of mathematics, geography, astronomy, botany, medicine, and other sciences were obtained from this source.

Nevertheless, the "black ships" of Commodore Perry found in 1853 a Japan but little changed from the Japan of the seventeenth century. The tide of progress in civilisation had passed her by and left her stranded. As the result of his efforts a few ports were unwillingly opened to foreign trade. Then commenced a long struggle

between the forces of conservatism and innovation, complicated by the strife between the shogunate and the clans of Satsuma and Choshu, which lasted until 1868, when the shogunate fell. Up to that time the clans opposing the shogunate had been counted as conservatives, though as a matter of fact the daimyate of Satsuma had introduced some foreign innovations, purchasing steamships and establishing a spinning mill. But generally the clans claiming to be pro-Imperialist and anti-shogun denounced the opening of the ports to foreigners as a desecration of Japanese soil and insistently demanded that the "hairy barbarians" should be driven into the sea and the ports closed. When the shogunate fell and the Mikado came to rule as well as reign, with the Satsuma and Choshu clans in full control of the reins of government, a complete change took place in their attitude. They began to perceive that owing to the extension of communications seclusion was no longer possible and that intercourse with foreign nations, once restored, could not be broken off without danger. It was natural that in these new circumstances the younger men, some of whom had visited foreign countries and learned how far Japan lagged behind the times, should be called to fill a place in the national councils, and to institute reforms calculated to bring Japan on a level with the progressive countries of the West.

The consequence of this new spirit was that foreign scientists and experts were engaged as teachers. Japanese weakness being strikingly evident in the matter of defence, it was the reorganisation of the army and navy to which attention was first directed. Englishmen were employed to convert a navy of war-junks, propelled by sweeps or sails, into a navy of modern steam-driven warships, the success of which was shown in 1894 at the Yalu and in 1904 at Tsushima. Frenchmen were engaged to build arsenals and dockyards and reorganise the army, being replaced by Germans after the war of 1870-71 had shown the superiority of the German military machine. How closely the Japanese army has followed German patterns, even to the goose-step, will be realised by any one who makes an examination of its methods. Organisation, administrative details, training, equipment, the whole is a remarkably close copy of the German military machine, and, unlike copies in general, the imitation showed itself in its encounter with the Russian armies to possess the driving force of the original. From questions of defence the new Government turned to the reorganisation of the civil and criminal law, early realising that unless its legal adminis-



MR. ROBERT YOUNG, PROPRIETOR OF
"THE JAPAN CHRONICLE"

tration could be brought more into accordance with the principles animating the juridical systems of the West, it would be hopeless to expect admission to the comity of nations. The codification of Japanese law was begun by a Frenchman, M. Boissonade de Fontarabie, who incidentally brought about the abolition of torture by offering his employers the choice between its immediate suspension or his resignation. His work of codification was continued by Germans, and the Japanese legal system to-day may be said to be an amalgam of French and German principles upon which Japanese customary law and institutions are grafted.

Another important question to which the new Government early turned its attention was that of the currency, which was reorganised under British auspices. A mint originally erected at Hongkong was obtained and set up in Osaka, where for many years it was operated by English experts who raised the Japanese coinage to an equality with that of any other nation both as regards standard and appearance. Education was placed in the hands of Americans, who laid the foundations of an excellent system of instruction, afterward influenced and modified by German ideas. But it was an Englishman — Basil Hall Chamberlain — who was made Professor of Japanese and Philology in the Imperial University of Tokyo, and whose example did so much to encourage the study of the language from a philological standpoint among the Japanese themselves. The higher medical instruction of the country was for many years in the hands of Germans, the whole medical science of the country to-day being on German lines. Post office, telegraphs, and railways were all

organised or constructed by British subjects. Lighthouses were planned and erected under British supervision. The reform of the prisons was undertaken under British advice. Waterworks and harbour works were constructed under the superintendence of British employees of the Japanese Government. The first spinning mills were erected and run by men from Lancashire; the first flour mills were built and operated by Englishmen, while the organisation of the first steamship company was undertaken by foreigners, chiefly British and Americans, who also for many years officered the vessels. It was an Englishman who started the first newspaper in Japan printed in the native script. "By foreigners," says Professor Chamberlain, "the first men-of-war were built, the first large public edifices erected, the first lessons given in rational finance. Nor must it be supposed that they have been mere supervisors. It has been a case of off-coats, of actual manual work, of example as well as precept. Technical men have shown their Japanese employees how to do technical things, the name of *chef de bureau*, captain, foreman, or what not, being no doubt generally painted on a Japanese figure-head, but the real power behind each little throne being the foreign adviser or specialist."

Nothing but praise is due the Japanese for so readily recognising that they must sink any national pride and employ foreigners in the work of reorganisation, and it may be acknowledged that these experts were liberally recompensed and generously treated. But this scarcely gives the Japanese the right to claim the labours of the foreign experts as their own, and it does not justify the assumption so frequently made that the metamorphosis from feudalism to the modern industrial State has been the unaided work of the Japanese, without expert knowledge or training—a modern miracle. What is so remarkable is that despite the assistance rendered by foreigners in the great work of reconstruction, the general attitude towards the resident foreigner is neither just nor generous. Considerable jealousy is shown regarding his efforts both in the matter of trade and industries. Ten years ago, one of Japan's greatest admirers, the late Captain Brinkley, wrote: "He would be a very ill-advised Occidental who carried his money to Japan and proceeded to set up a factory on his own account." The attitude taken by the bulk of the Japanese is that any profit made by a foreigner in Japan is so much taken from the pockets of Japanese. No consideration is given to the development of resources effected by foreign aid or even to the fact that in the majority of cases any profits made are

spent in the country itself. The Japanese view seems to be that capital invested in the country must be under the sole administration of Japanese. It was, of course, the foreign merchant who instituted and developed Japan's oversea trade, and it is due in no small measure to the foundation he laid that Japan's exports in the Meiji Era increased from a total value of Yen 15,000,000 in 1868 (say Yen 3,000,000 at the then rate of exchange) to Yen 458,000,000 in 1910. Nevertheless, the view of the Japanese is that the foreign merchant is an interloper and that he should go his way with the foreign experts whose services have now been dispensed with. It does not seem to occur to the Japanese who take this view—and it is to be feared that they are the large majority—that the more foreign merchants who can be persuaded to use their energy, capacity, and capital in developing Japanese trade and finding a market for Japanese products, the greater must be the profit for Japan. The general feeling seems to be that the foreign merchant is in some way robbing the Japanese of business that would otherwise come into his hands, and upon which he would reap the profit that is now made by the foreigner. Of course, as time has gone by it is only natural that the bulk of Japan's foreign trade should pass into the hands of the Japanese, who, with growing experience, have become more capable of conducting it. But, as might be expected, with an increase of the bulk of foreign trade, the share of foreign merchants has increased in amount, though it has diminished in the percentage of the total. As indicating the extent of trade done by foreign merchants and the contributions levied thereupon by Japanese taxation, it may be interesting to state that according to an investigation made a few years ago, the foreigners of Kōbe, who, including the Chinese, do not constitute quite 1 per cent of the population, paid almost 10 per cent of the total imperial taxation, 13 per cent of the total income tax, and 21 per cent of the total business tax. A similar investigation with regard to Yokohama showed that while foreigners constituted only 2.09 per cent of the total population, they paid 22.62 per cent of the business tax.

It might be thought that such facts as these would prove the value of the small foreign community to the Japanese State, both from the work done in extending Japanese trade and the contributions to Japanese expenditure, but this is not the case. The attitude of the Japanese Government as well as the Japanese people is that of hostility, more or less veiled, to foreigners and foreign enter-

prise. The alien is under many disabilities. Foreigners are denied the right to possess land in their own names. Prior to the last revision of the treaties in 1911 a Land Ownership Bill was passed which proposed to extend this right to foreigners whose countries granted Japanese a similar concession. The measure was, however, hedged about with so many harassing restrictions, such as that a foreigner who desired to purchase land must be domiciled in the country and must sell his land on leaving Japan on pain of confiscation, that it would have been of but little value in practice. Though passed by the Diet, it has never come into operation, and it remains a dead letter. It is possible, however, for two or more foreigners to organise a company under Japanese law and thus hold land, but the device is not altogether satisfactory as it does not rest on any established right. Dr. de Becker, a jurist of acknowledged authority, points out that foreigners can be interested in (1) limited partnerships, (2) joint-stock limited partnerships, and (3) joint-stock limited companies owning Japanese ships; but in the first place they can not become partners with unlimited liability; in the second case, the same rule applies, and in the third case, they can not become directors. In other words, the law is so framed that all the executive power is vested in the hands of Japanese subjects. Foreigners may not become shareholders in the semi-State banks, such as the Bank of Japan, the Yokohama Specie Bank, or the Agricultural or Industrial Banks. These banks, with the authority of the State behind them, in some cases make loans to Japanese at rates far below those ruling in the markets, in order to enable Japanese to compete on favourable terms with foreign undertakings. Seeing that any loss is borne by taxation, to which foreigners contribute, the exclusion of foreigners from being shareholders or from the benefits derived from such banks is evidently unjust. Again, the articles of subsidised companies, such as the Nippon Yusen Kaisha (Japan Steamship Company), exclude foreigners from membership, though here also the subsidies come from general taxation to which foreigners contribute. Foreigners can not become members, shareholders, or brokers of the various exchanges, and they are excluded from membership in the chambers of commerce. Foreigners can not engage in the emigration business either as individuals or as shareholders of the emigration companies. Foreigners pay rates, but can not vote in municipal elections. Foreigners can not become members of the Japanese Bar or practise in a Japanese court,

despite the fact that a number of Japanese have been called to the English Bar. Vessels flying a foreign flag are not only excluded from the Japanese coasting trade, but even the concession under which foreign ships on a continuous voyage were able to carry cargo and passengers between Nagasaki, Kōbe, and Yokohama was withdrawn when the treaties were revised in 1911. Thus, while Japanese ships may ply to and from any British port (Hongkong to Singapore, Singapore to Calcutta, Colombo, Bombay, or home ports), a British vessel is prohibited from carrying a pound of tea or a single passenger between Formosa and Nagasaki, Kōbe, or Yokohama.

In view of these disabilities it is scarcely surprising that the extension of Japanese influence or territory in the East is not welcomed by British or any other foreigners in this part of the world. In Formosa, for example, there has been a deliberate attempt to squeeze out foreigners from the trade they established. "Japan for the Japanese" is the principle advocated, and reciprocity is lost sight of. When it is considered how much Japan has owed to foreigners in the past, it is surprising that such a short-sighted policy should prevail. In the matter of the administration of justice, foreigners have full and unrestricted access to the courts, but the procedure is so cumbrous and is subject to so many delays that merchants in many cases prefer to suffer loss rather than indulge in such an expensive luxury. However, they are no worse off in this respect than their Japanese fellow-residents. What may justly be resented is the latent hostility to foreigners and foreign enterprise, which is sometimes even more evident in Government circles than among the mass of the people. Occasionally even officials of Government departments have openly advocated the supplanting of the foreign merchant in the interests of what is called "direct trade," quite oblivious to the fact that every agency which can be recruited is of advantage to the extension of Japanese commerce.

It may be hoped that as a knowledge of the teachings of economics extends, there will be a wider appreciation of the benefits to be derived from the assistance given by foreigners in the extension of Japanese trade and the development of Japan's resources. No one suggests, of course, that foreigners are animated by an altruistic motive in their commercial undertakings, but, in view of the liberty extended abroad to Japanese when engaged in mercantile pursuits, foreign merchants in Japan and Japanese territories have a right to expect some measure of reciprocity.



XXVI. JAPANESE CHARACTERISTICS: THE PHYSICAL, THE MENTAL, AND THE MORAL

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PHYSICAL CHARACTERISTICS—MENTAL CHARACTERISTICS—MORAL CHARACTERISTICS

A GOOD deal has been said and written by Occidentals on the characteristics of the Japanese, mostly by those whose briefness of sojourn in Japan could not possibly have made them authorities on the subject. Even old residents increasingly feel convinced that the longer one lives in the country the more one should honestly hesitate to venture upon any positive estimate of the nation's more salient points of character. All that one feels fully persuaded of is that while the Japanese are in many ways a puzzle, from an Occidental point of view, they are nevertheless neither beneath nor beyond the pale of humanity as known in other lands; they are indeed the most human of mortals, with their full share of all the virtues and vices, the greatness and meanness, that man is heir to everywhere, only developed from a different angle, so to speak.

With those who hold that long intimacy of contact with Eastern peoples incapacitates an Occidental for trustworthy appreciation of their character, surely no rational mind can agree. If the resident of the Far East be supposed to lose sense of proportion and even to forget or ignore the alleged superior standards of the West, or, on the other hand, to acquire that familiarity which breeds contempt by over-long association with the life of the Orient, how is it that no such absurd notion is entertained when the case is reversed and the problem becomes a proper estimate of Occidental character by Orientals? No one would dare to advance the contention that extended residence in Europe or America invalidated the claim of a Japanese to a proper appraisal of Occidental characteristics. If the qualification of a careful first-hand study of

a people's civilisation and history be deemed essential in the one case, it must be equally so in the other. What one has to avoid, in order to get at the truth, is that attitude of prejudice so often evinced by the average Occidental in approaching an estimate of Oriental characteristics. It is a matter where absolute impartiality is imperative, if one desires the truth. Too often it is found that when the verdict is condemnatory of the East the Occidental does not discredit it as the product of over-ripe or over-hasty observation, but when judgment turns out to be of a eulogistic nature it is declared due to one or other of the causes stated. Thus it is only a favourable opinion that seems open to suspicion. This prejudice may be unconscious, but it is too frequently obvious, none the less, and it inevitably revolts against anything antagonistic to its promptings.

The present essay, based on many years of close first-hand study and observation of life and character in Japan, is an appeal only to those of an open mind. Facts and incidents which only extended residence and labour could have accumulated, will be brought to light and opinion frankly stated. No attempt will be made to deny that the globe-trotter and other superficial observers may find in Japan conditions which merely to see are sufficient ground for judgment. But this concession can not alter the fact that for any adequate appreciation of Japanese characteristics a knowledge of the language and some degree of communion with the thought of the people are essential. Even the average foreign resident of Japan, much less the average tourist, sees no more than the barest superficialities of everyday life. To some, of course, this is all of life, but it is a very inadequate basis for trustworthy understanding of national characteristics. Even from those Japanese who speak one's language very little can be gathered of the native character and spirit, as they invariably put themselves in the position of the foreigner and talk to him from his point of view. And to increase the difficulty, the Japanese with whom the average foreigner most comes in contact are least representative of the nation at its best. This is especially true of the foreign merchant and the foreign tourist, the one in Japan to get money and the other to spend it, and both of whom meet as a rule only the inferior type of trader. Very seldom indeed do those engaged in trade and pleasure-hunting meet the best class of Japanese. The missionary and the teacher of a foreign language are the foreigners in closest contact with all classes of the people and must be regarded as the best judges of the nation's character, though the data supplied by the foreign merchant should receive due consideration.

To the foreign observer Japanese characteristics can be most conveniently considered under three heads: the physical, the mental, and the moral.

PHYSICAL CHARACTERISTICS

THE Japanese race no doubt derived its physical characteristics from the various migrations arriving in the islands from Korea, Mongolia, Malaya, and the islands of the Pacific, the predominant type being Mongoloid. The admirable qualities of Mongol physique, however, have been diluted by infiltrations of tribal inferiority from the Pacific islands, forming a blend of bloods that has been a tremendous handicap to Japanese racial development. Fear of this retarding influence of inferior immigrants on

racial progress is natural and legitimate among the white races, and eminently justified by a study of Japanese evolution. The racial intermixture took place in Japan in prehistoric times, and though the memories of it are now forgotten, echoes of the ancient antagonisms are still heard in the clan disputes of modern politics, and in the struggle for priority and position. On the other hand, Japan's mixture of bloods, so far as the ingredients were superior, has proved the salvation of the race. After all, only mixed races are strong, as may be seen in the case of the Anglo-Saxons; but when the mixture is of doubtful reputation, as was the case in Spain, the race is inevitably

threatened with deterioration. After more than two thousand years Japan is just beginning to show signs of rising above the disabilities imposed upon her by the tide of inferior blood from the south, and she now bids fair to reveal an immense racial potentiality.

Archaeological and anthropological research indicate that two main streams of immigration met in Japan, a mild and cultured strain to the west coast from China and Korea, and a fierce, warlike strain from the south, the latter subduing the former and imparting those fighting qualities that enabled the race to conquer the aborigines and establish the Empire. The upper



PEASANT TYPES



YOUTHFUL BABY NURSES

classes of Japan, descended from the priests and soldiers of the invaders, have preserved the blood of their distant ancestors free from the aboriginal bloods of the islands, and mixed only with Korean and Chinese immigrants and missionaries who came to Japan in large numbers in the fifth and sixth centuries, thus accentuating the aristocratic characteristics of the nation. This type is distinguished by long oval faces, oblique eyes set in deep sockets, long eyelids, small mouths, straight noses and finely cut features, high and narrow foreheads, fair complexions with soft hairless skin, called by the Japanese "silken skin." On the other hand, in the labouring and agricultural classes of the present day we see the squat round faces and coarse features of the aboriginal races and the migrations from the southern islands. Their eyes are level with their faces, and they have thick, upturned noses and exposed nostrils. All Japanese have the yellow skin and black hair of their Mongol ancestors, but there are important exceptions, which will be noted later.

In physique and muscular energy the Japanese are inferior to Europeans, but their deficiency in these respects is redeemed in some measure by their activity and endurance. No one can mingle with the Japanese without seeing at once that their stature is quite diminutive compared with foreigners, the average height for men being five feet three inches, and for women four feet ten inches. The stature of male Japanese seems about equal to that of European females. The average Japanese soldier is two inches less

in height and twenty pounds less in weight than the average European soldier. The shortness of Japanese stature is found to be in the legs more than in the body, the trunk being but slightly shorter than that of the European. In case of a difference of two inches in height between a Japanese and a European, there will be found a difference of only half an inch in their bodies. It is said that the cause of the disparity is the Japanese habit of squatting on the floor, drawing the legs up under the body in a very cramped position, a posture that no European can endure for more than a minute but which a Japanese can maintain for hours at a time. This custom may also account for the prevalence of bandy legs in Japan, though this deformity is also ascribed by some to the further habit of carrying babies and children on the backs of mothers and nurses with the legs drawn around the bearer's hips.

Though so diminutive in physique the Japanese command a remarkable strength of muscle, and can easily carry burdens that both baffle and astonish the Occidental. Trunks and baggage that a Western railway porter would not dream of handling alone, because they tip the scales at between 200 and 300 pounds, are seized by a single Japanese coolie and borne from the deck of a steamer down to the launch with apparent ease. And the Japanese can live and maintain himself in a working condition on food that would soon make an Occidental workman an invalid. It is a question, however, whether the Japanese is capable of enduring

the same degree of steady strain as a European of the same class. Certainly Japanese servants and labourers are not capable of doing the work that Western men and women do in the same time. In long and forced marches Japanese soldiers are found to fall out and collapse more frequently than in the case of Europeans, though it must be admitted that the Japanese recruit receives less consideration from his officers. On the other hand, Japanese appear capable of enduring greater physical pain than Europeans, evidently having a coarser grain and a more metallic nerve. Japanese go through surgical operations without an anæsthetic that no Occidental could face, and they meet death with equal composure. Physically and mentally the Japanese woman seems less developed than the man, though her nervous system is naturally more highly organised. On the whole it may be said that the Japanese woman is not equal to the European woman in physical endurance, perhaps because her life is harder, lacking, as she usually does, the consolations of conjugal love and tenderness, which mean so much to women.

Looking into the matter of Japanese physique more in detail one can not refrain from saying, without any attempt at being guilty of Hibernianism, that Japanese heads and faces are things in themselves. When one is prone to criticise the cartoons in "Punch" and "Puck" and "Judge" and "Life," as sometimes too severe a strain on the imagination, all one has to do is to come to Japan and find that the most extravagant reaches of the brush and pencil are true to life. There are, indeed, three distinct types of face among the Japanese, recalling the various bloods comprising the race. These may be termed the oval, the wide, and the long face. The dolichocephalous head is not so common as the brachycephalic, while prognathous countenances both among the upper and lower classes are frequent. Some Japanese have a negroid face, with thick protruding lips and fine teeth, and others have a Filipino cast of countenance, indicating their origin. Then there are faces, as already mentioned, strikingly like those of Chinese and Koreans, with high cheek bones and oblique eyes. The noblest examples of face and physique among the Japanese, however, are of a type quite different in some important respects from any of the above. These have faces that would make as perfect Greek models as any to be found in Europe, and with complexions to match. Again, there are numerous faces that remind one of the American Indian and of the Esquimo. Invariably the eyes and hair are dark, but in varying degrees, from pitch-black to light

brown, and some heads have even a tinge of red. The eyes, likewise, are black, but also varying in shade to light brown, hazel, and liquid amber. The hair is nearly always straight and lanky, but wavy and even fuzzy heads are seen. While the men have their hair clipped short, the women devote great attention to the dressing of their wonderfully long tresses, always having them built up in a remarkable coiffure on the top of the head. Some of the women have locks of raven black that fall below the hips, as may be seen among the school-girls who have not yet put their hair up. One may even see cases where the hair falls below the knees. While the eyes of the Japanese are

either almond-shaped and oblique or big and ox-like, there are many with tiny eyes and others with eyes that dance. It is at once quite evident that the cause of the oblique eye is that the eye socket is thrown up at the outer side by the high cheek bone. The nose is truly one of the most distinguishing facial characteristics of the Japanese, its proverbial flatness doubtless due to its having scarcely any bridge. In width and length the Japanese nose reminds one of the Egyptian nose, as seen in the ancient sculpture of that country. The best example of a typical Japanese nose is to be seen in the great statue of Buddha at Kamakura. Not infrequently one sees indi-

viduals whose cheeks and lips protrude quite beyond their noses, the latter set in a little hollow between the eyes and mouth, the effect being not exactly successful from an artistic point of view.

The colour of Japanese skin is dark ivory often merging into yellow and brown, but there are striking differences, more striking than in the shades of complexion to be seen in Europe, varying from dark brown, copper and leather colour, to skins as white as a European's. According to native taste the ideal complexion for a woman is pure ivory, or, as the Japanese poets say, "white as young tree roots," which in reality are ivory colour. To this ideal most of the women of Japan endeavour to attain by means of face powder, though in numerous cases it is reached by nature. It will probably surprise Europeans to be told that some Japanese, especially ladies, have skins as white as Occidentals; but it is a fact that often one can see young women in Japan with a natural complexion even superior to anything that can be seen abroad. One must needs concede that a country which can produce such pretty girls must surely have in it the makings of a great nation. Only too often, however, the exquisite natural tint of young maidenhood is spoilt by artificial additions that poison the skin and destroy forever its god-given peachbloom. The incomparable complexion of what may be called a white Japanese girl is rich rose-misted marble, not unlike the Italian girl at her best, while the hands of Japanese women are no less than a dream of shapely refinement. As a rule, the Japanese women are much more handsome than the men, and they are also generally far more refined in speech and manners. In most cases, at the age of about thirty the Japanese woman begins to lose the bloom of youth, fading into an appearance that surely must come from unfair treatment; but to this also there are notable exceptions, which suggest that with proper care the women of Japan might preserve their youth and beauty as long as their Western sisters. Another sad phase of life in Japan is that some of the most beautiful girls are devoted to the business of singing girls, called *geisha*, for in no other land has beauty a higher price than in Japan. Japanese ideas of physical beauty differ considerably from those of the West, many Occidental beauties seeming to the children of the gods like green-eyed goblins, though it is noticeable that when Japanese marry Occidental wives they almost invariably choose women with auburn hair and eyes of blue. The Japanese children are almost always pretty, being rosy as ripe apples.



A STREET CONJURER PRODUCING A PIECE OF WIRE FROM HIS NOSE



DR. EDWARD SALISBURY, A NUMBER OF WHOSE ADMIRABLE PHOTOGRAPHIC STUDIES OF PEASANT TYPES APPEAR IN THIS ARTICLE AND ELSEWHERE IN THIS VOLUME

Japanese arms are longer than ours, the peculiarity being emphasised by the shortness of the legs; and their hands and fingers have a graceful, prehensile movement. Indeed, the Japanese can do much more with hands and fingers than Europeans can; and where fingers prove inadequate even teeth and toes easily come into requisition. Some Japanese can tie or untie a knot as easily with their toes as foreigners can with their fingers. The Japanese are the most dexterous race in the world, that being one reason why they are in such demand as fruit-pickers in California. To see a row of Japanese girls rolling cigarettes in a factory is to see a manipulation so agile as to seem scarcely human. Japanese sometimes use their ears as purses for small coins, while behind the ear is often carried a toothpick or a cigarette or both. The people have remarkably good teeth, of which they take excellent care by brushing them while they take a morning walk. Dentists are many and cheap and even the common coolie may be seen with a mouth full of gold teeth. As a rule, the hands are carefully manicured, the nail on one little finger, in Chinese fashion, often being left about half an inch long. The shoulders of the Japanese are usually wider than the hips, the latter being remarkably narrow, especially in the women. The foot is broad and not deprived of its natural shape by boots. The feet of ladies and gentlemen are, as a rule, small, and covered with a kind of sock divided for the great toe.

The general appearance of Japanese physique in the nude is that of a baby, rather stocky and undeveloped, something after the manner of Michael Angelo's angels. Indeed, when the writer first saw these he wondered if the Italians were really so stocky in the Middle Ages, but on coming to Japan he was interested to note that such mortals still live.

On the whole it may be said that Japanese physique is generally inferior to that of the European. One seldom sees a really well-built man or woman on the streets. For this reason the people look better in native than in foreign costume, the latter exposing their physical defects, this being more especially true of women. It must be understood, however, that there are notable exceptions, which suggest hopeful possibilities for the future. It is only a case of arrested development, and with proper physical education and feeding no doubt great improvement could be brought about. For the present it is to be hoped that the desire to introduce foreign dress will not be gratified. A long waist and short skirt are conducive neither to grace nor beauty, while the native *kimono* makes any figure look well. In some cases arrested development is so conspicuous as to suggest the survival of the cave man, offering a splendid field of study for the anthropologist, while side by side with these are examples of physical development equal to any seen in Europe, suggesting what Japan might have been but for the blighting strain of inferior blood mixture.

MENTAL CHARACTERISTICS

THE Japanese mind is a much more formidable problem to the Occidental than the question of Japanese physique, for native reticence and proverbial precaution render it almost impossible to get at what a Japanese really thinks, or even to learn his mental processes. To gauge the mental phenomena of a country and people steeped for ages in occultism and superstition is assuredly a task for first-hand study by an expert psychologist, and a task which even he must approach with hesitation. Of course the grey matter of the brain is essentially the same in kind, if not in degree, everywhere, and two plus two make four in Japan as in the West. Yet, owing to difference of education and social environment, the gulf between the mind of the Occident and that of the Orient is admittedly wide, and only the greatest patience and honesty can hope to bridge it.

The question whether Japanese cerebral capacity is equal to that of the European has long ago been decided by scientists in the affirmative, though sometimes one sees things in Japan which would tend to reopen the question.

To a pedagogist there can be no doubt that the Japanese system of education, a natural evolution from feudal training, which places the many at the mercy of the few, tends toward arrest of mental development. Japanese education develops the lower faculties of the mind, such as memory, at the expense of the higher faculties of reasoning and logical inference.



DR. SALISBURY HOLDS A LEVEE



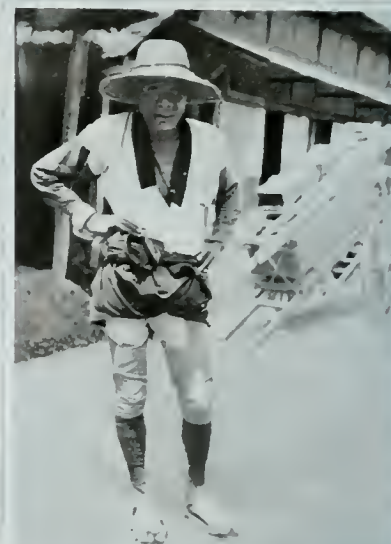
THE YOUNGER GENERATION — STUDIES BY DR. SALISBURY

Memory in itself is not a mark of sanity, since some lunatics have marvellous memories. The first fourteen years of every Japanese child's life are given perforce to memorising thousands of Chinese ideographs, even the meaning of which he does not always know, and after he has mastered them the rest of his life is devoted to memorising what his ancestors thought and did. Thus his whole existence is a memory and an imitation and his whole duty memorising and imitating, with little attention to initiative or originality. His mind is like a photographic plate which is ever receiving but seldom imparting. During the long centuries of feudalism the whole nation was in subservience to authority that forced everything, and every mind especially, into the same narrow groove, and after a nation has depended so long on others to do its thinking, it does not readily begin to think

for itself. This attitude of incapacity is a feature of Japan's social and industrial machinery still. The Japanese does not follow reason; he follows his eye and his memory. He is confined to rules, and if they do not work he is helpless. A Japanese who can memorise the most complex system of ideographs often can not do a simple problem in mental arithmetic without his abacus, or by counting on his fingers.

The average Japanese seems to have more fear of being different or being laughed at than of being in the wrong. The people are very emotional and liable to extremes. Society is subject to waves of emotion and sentimentality which a Western mind can hardly understand. They will die for an idea too minute for any Occidental mind to perceive. Thus one finds in Japan a childish cheerfulness and a crass contentment with listlessness and inefficiency. Among the peasantry there is an unsophisticated disposition to trustfulness that becomes an easy prey to the designing, and on the other hand an unreasoning suspicion of all things strange. With the Japanese, silence always means dissent. Their long feudal subjection has created a state of mind that is content to take nominality for actuality. If a man treats you with profuse politeness you must not expect him to pay his debts. If he subscribes to your fund he may pay it by getting an equal subscription from you to a fund of his. Even patriotism is more of an emotion than an ideal or even an idea; it seems an instinct, like the devotion of the bees to the queen. Natural under a system where intellectual and social development has been retarded, the childish emotions are conspicuous.

Devoted for so long to the objective and what appeals to the eye, the Japanese mind has little appreciation of metaphysical, psychological, and ethical subtleties, and disdains idealism save in the direction of the petty and the queer. With even the educated, life is rather a mechanical, humdrum affair, since they are quite unable to appreciate the moral and æsthetic niceties of Western civilisation. One can only infer this from the indifference shown to Western culture as seen in the lives of scholars resident in Japan, and in the Japanese contention of their superiority to Occidental civilisation. The only exception seems to be in the direction of poetry and pictorial art, where the treatment is always more suggestive than finished, and often exquisitely idealistic. Yet it is always the idealism that runs to little things. It adores little wives, little children, little houses, little hands, little gardens, little flowers, little trees, little pictures, little poems, miniature scenes and plants. In religion, art, and poetry the



COOLIE TYPE

Japanese always look for the spirit, without which no perfection of form can avail. But this virtue is confined to the very few able fully to appreciate art, the masses popularly following the fashion in this respect.

Consistently, however, the Japanese mind loves simplicity and strives to achieve great things from small means. It may be something more than simplicity, for ages of forced frugality must have preserved the original primitiveness to a large extent. The Japanese house is a very simple affair. From the bamboo tree alone hundreds of simple articles for daily use are made, from toothpicks to tables. A Japanese does not hesitate to set up a piano factory of ten by twelve feet. The most exquisite silk fabrics are produced from tiny looms in small houses. Some Japanese motor-car agents have to climb over the sample car to get into their houses, as it fills the whole of the front room. Their love of the bizarre and the grotesque may be a reaction against the monotonous conventionality of daily life.

The Japanese mind has a tendency to be active rather than passive, and it absorbs only what is agreeable to it; that is, only what is capable of being Japanised. It is naturally anti-pessimistic and gay, having little use for melancholy either in religion or society. The famous Japanese smile, however, is often no more than a brave endeavour to hide a sad heart, as well as a courteous effort to save others from unpleasant feelings. Predilection for the agreeable, which is confounded with the good, often deprives the Japanese of what is most necessary for their moral and mental good. In adopting their eclectic system of Western civilisation the Japanese do not ask whether it is good or true but whether it can



"GEISHA"



"WARY" AND "DANGER PAST"

be adapted to native ideas of nationality. To be contrary to or inconsistent with the genius of Japanese civilisation is to stand condemned. For a thousand years Japan has been imitating China and for half a century Europe, but never for a moment has she lost her mental independence or the genius of her own civilisation, always exercising the most careful discrimination. It is the nature of the Japanese mind to Japanese everything it receives, even the truth itself.

It is this characteristic that leads the foreigner to the conviction that the Japanese are an obstinate and stubborn race, with an abnormal degree of self-conceit. There is nothing the Japanese mind hates more than to retract a statement, and this is why the people as a race are noted for their reticence, though a further reason is that they are always suspicious lest they be taken advantage of. It is also due to the influence of feudalism which often made mistakes fatal. The Japanese usually think a long time before committing themselves, but after the utterance is made, it will not be retracted, even if it be proved inaccurate. Their principle is to assert only mature thought and then stand by it. It is always a matter of astonishment to Japanese to hear great men abroad admitting their errors or mistakes. A Japanese official would resign and retire from the world rather than admit he was mistaken. Most Western

people would regard this attitude of infallibility as one of pure conceit and a weakness, but in Japan it is taken for nobility of spirit. It certainly leads to infliction of mistakes and errors on a long-suffering population, and to a disrespect for truth. It is a weakness that also leads to frequent misunderstanding of foreigners. A Japanese believes he can infer the future from the past and the whole from the part, making no allowance for evolution and development; and this constant effort to arrive at truth without adequate investigation, leads him to think that when he is talking to any one he can know what is in his interlocutor's head. In judging a foreigner from a Japanese standard and motive, the

tendency, while to others, a minority perhaps, Japanese ideas of ethics are more enlightened and rational than those of Europe. Certainly in some ways the Japanese are more free in respect to moral scruples than Occidentals, since their civilisation permits many things that would be offensive to the moral laws and ideals of the West. This is only to say, however, that the East and West are morally different. To the average Occidental the Japanese appear to treat moral questions very lightly, this being also due to the fact that the Japanese differ from foreigners as to what is and what is not moral. Japanese morals are based on a very simple if inadequate foundation, free from the complexities and the conscience of Western moral codes. There is but one law of conduct, known as Loyalty and Filial Piety: Loyalty to sovereign, to parents and superiors, apart from which there is no piety, religion, or morality. The great weakness of this code is that once the individual has satisfied himself as to his duty toward those above him, his duty is done; he owes nothing to those below him. It is, therefore,



DECORATIONS FOR A BOYS' FESTIVAL

verdict is more often than not quite unjustified and unfair to the foreigner. This belief in their powers of mind-reading often leads the Japanese to make mistakes in regard to foreigners. Often when a foreigner is advising Japanese for their own good they believe he is advising them for his own good, and so refuse to take the advice.

MORAL CHARACTERISTICS

THE subject of Japanese morals has been discussed with such diverse conclusions that one naturally hesitates to approach the question with any degree of confidence. To many Europeans the Japanese seem less developed morally than the peoples of Chris-



THE ELABORATE COIFFURE



THE OLDER GENERATION — STUDIES BY DR. SALISBURY



PLAYING UNDER DIFFICULTIES

a morality fitted only for slaves and serfs, and was indeed the outcome of feudal days when there was a law for the inferior but none for the superior save his own will. Consequently there is no immorality except in relation to sovereign, or parents or superiors. It is immoral not to put away your wife if your mother commands it, but not immoral to be unfaithful to your wife, or to put her away after falling in love with some other woman. Morality consists in observing the precepts of one's ancestors, and for the rest, simply following the dictates of nature. According to Western morals it would be immoral for a parent to sell a daughter to a life of shame, but in Japan it would not be immoral for her to acquiesce if the parents required it. Man should follow nature, as Confucius taught. It is not wrong to do what nature demands so long as it in no way conflicts with one's superiors. But the superior is not bound in the same way to respect the inferior except as the legal code demands, and this the superior can easily find a way of evading, for if the inferior does not submit to the superior he or she will soon be without a master and a living. Due provision is made by the State to gratify all the normal mental, physical, and social wants of man; but for woman it is different. Especially in regard to sexual morals there is one code for the man and another for the woman. There is among the Japanese apparently no sense of shame with regard to what nature demands. If it is natural it is nothing to be ashamed of. Once admit this and one can fancy many things to be seen and done in

Japan that are either not seen or secretly done abroad.

When it is said that canons of probity do not command so wide an observance in Japan as in Europe, the Japanese reply that foreigners associate only with the inferior classes. Taking truth as a matter of expediency, however, is not apparently limited to any one grade of society in Japan. The habit is naturally the out-

come of feudal government and military régime, where the only escape is by deceit and lying. For nearly three hundred years Japan was practically governed by means of secret information obtained through spies. Thus every one had to be careful as to whom he talked with and to say only what would be in the interests of his master and his family. Of course, white lies are a matter of course. In the West this habit is usually confined to doctors and patients, parents and children, where the truth can not always be told with good effect; but the Japanese play fast and loose with this principle to an extent that must be regarded by Europeans as immoral. If a servant is going to leave her mistress she seldom tells the truth about it. She acts like a diplomatic official and gives some agreeable reason for her conduct. Consequently in Japan no one believes servants and diplomatists.

The main feature of Japanese morality is its communalism; it is a morality for classes and families, and entirely inadequate to the individualism which modern democracy is bringing to Japan. An examination of 70,000 children in Japanese schools carefully made by an expert educationist showed that the vast majority put down Loyalty and Filial Piety as the end and aim of life. Truth, honesty, sincerity, kindness, philanthropy, altruism had no place. Such is the natural result of a civilisation that has been communal and military rather than commercial and industrial, for no commerce can succeed where confidence is lacking.



INTERIOR DECORATIONS FOR A BOYS' FESTIVAL

Japan has yet to prove that her physical, mental, and moral virtues are sufficient to meet the strain of modern evolution. Until her communalism makes room for the individual, fully developed and capable of all the virtues of the best sort of man, it will fail to hold its place in the modern world.

That Japanese society is capable of changing to suit the demands of growing humanity there is no doubt. The difference in charac-

teristics between Japanese and foreigners is not due so much to inherent psychic nature transmitted by heredity, as to the nature of the social order transmitted by social heredity. In other words, it is the result of a false system of education, and can only be obviated by a proper system of education. No amount of boasting about *bushido* and the Japanese spirit can take the place of this. There is nothing in *bushido* nor in any compendium of morality published in Japan

that contains anything so admirable as the simple catechism of the Church of England in the part dealing with one's duty to one's neighbour. *Bushido* is a code for soldiers, a class code; and *Yamato Damashii*, or the Japanese Spirit, is only the spirit of a people forced to stern endurance and convention in the fires of a merciless and selfish feudalism. A truly scientific educational system would alone meet the physical, mental, and moral needs of Japan.





LAKE BIWA, NEAR KYOTO

XXVII. JAPANESE ARTS OF SELF-DEFENCE

By E. J. HARRISON, F. R. G. S.

THE most distinctive Japanese arts of both defence and attack are *judo* (more generally known abroad as *jiujitsu*) and *kenjitsu*, or fencing. The former, by name at least and to some extent in practice, has become popularised in Europe and America, but the latter is less familiar. Both, however, are admirable in their respective ways, embodying as they do the applied and cumulative wisdom of many successive generations of sturdy fighters. In this place I am not concerned to decide whether or not the Japanese deserve to be called warlike; be that as it may there is no gainsaying the fact that certain chosen spirits from the earliest times have displayed a remarkable aptitude for combining theoretical and empirical knowledge in the domain of what, for lack of a more convenient nomenclature, may be termed the warlike arts. This aptitude is perhaps attributable to a phase of the Japanese mentality which in some quarters has been denied originality, but which nevertheless can not justly be denied genius if, as a certain sage has observed, genius is an infinite capacity for taking pains.

Thus, even if it were true, which is doubtful, that *jujutsu* was introduced into Japan by Chuen Yuan-pin, of the Ming dynasty, the fact remains that the art owes its development solely to native investigators and practitioners. Like so many other things Japanese, the original of *jujutsu* is traced back to the mythological age, for it is said that the gods Kajima and Kadori availed

themselves of the art to chastise the lawless inhabitants of the eastern provinces. But from then until the Hojo régime—from the twelfth to the fourteenth century—no special schools, styled *ryugi*, existed. Later, however, the various methods employed by a weaker person to defeat a stronger adversary were carefully elaborated until, in course of time, many *ryugi*, sects, or schools arose throughout the country. A volume could be filled merely with the mass of fact and fancy that has grown up around the names of these various systems which, however greatly they may differ in detail, are all based upon one and the same principle. This principle is aptly signified in the very name of the art, for *jujutsu* is written with two ideographs, the first, *ju*, meaning "to obey, submit to, weak, soft, pliable," and the second meaning "art" or "science." This combination, sometimes facetiously spoken of as the "gentle art," thus connects a system which relies for its triumphs, not upon brute strength, but upon skill and finesse, the ability to win by appearing to yield. The basic idea of opposing skill to "beef" in combat is fully exemplified in the story of the origin of the well-known Yoshin-ryu or Yoshin sect of *jujutsu*. The founder of this sect, a Nagasaki physician named Akiyama Shirobei Yoshitaki, chanced to notice one day in winter that the branches of a willow-tree in front of a temple where he was staying, did not retain the snow, even after a heavy fall, and that, owing to the suppleness of the branches, which gave

way under the falling snow, and thus threw it off as fast as it accumulated, the tree escaped the fate of seemingly sturdier growths, whose branches were everywhere ruthlessly crushed and broken under the burden. This observation gave him the clue to the valuable principle which lies at the root of all *jujutsu* "te," or tricks, thanks to which he was able greatly to improve his art and increase the number of his disciples. Hence he styled his sect *Yoshin-ryu*, meaning "Willow-heart school." The name of *jujutsu ryugi*, or sects, is legion. Among the better known which have survived to this day are the Kiraku-ryu, Take-nouchi-ryu, Sekiguchio-ryu, Shinnoshindoryu, Tenshin Shinyo-ryu, Shibukawa-ryu, Kito-ryu, Shimmei Sakkwatsu-ryu, etc. But all these at the present day are entirely secondary to what is known as the Kodo-kwan system of *judo*, founded by Dr. Kano Jigoro, an educationist of considerable prominence who, some twenty-five or thirty years ago, was induced to take up the practice of the old *jujutsu* in order to improve his own physique which then left much to be desired. On account of the reaction against the warlike arts that had set in after the Restoration and the abolition of feudalism, the former prosperous *ryugi* had fallen upon evil days and were almost deserted. Young Kano was therefore welcomed with open arms by their teachers and speedily initiated into all the secrets of the different schools, with the result that in the end he evolved his own



MASTER AND PUPIL AT SWORD PRACTICE

system, which is an eclectic one embracing all the best features of the older sects, with the addition of numerous improvements of his own. Among Dr. Kano's pupils are many of the most prominent military and naval men of Japan, not excepting even princes of the imperial blood. *Judo* is the system officially recognised, compulsory in all naval and military schools, practised at all Government universities and schools, at nearly all the larger private educational

establishments, and by the police. It is impossible within the limits of an article to give anything like a complete description of this art, which would require a special treatise, with illustrations, for its satisfactory elucidation. The word *judo*, it should be said, differs from *jujutsu* only in the last syllable which means "way" or "path," thus implying that *judo* is not simply a method of defence and attack, but an ethical system as well.



SWORD PRACTICE

The non-esoteric branches of *judo* are called *randori*, or "free wrestling," and *kata*, or "form," in which the principal tricks are demonstrated in a given order for two performers. Free wrestling comprises a most effective repertoire of throws, choke-locks, and bone-locks, called *gyaku*, and methods of pinning an opponent to the ground, styled *osae-komi*. There is a strict system of classification according to merit, the external badges of progressive efficiency being belts of three colours, namely, white, brown, and black, in the order named. Wearers of the white belt are merely beginners. The right to wear the brown belt goes with the grade of *kyu*, from three *kyu* to one *kyu*, of which the latter is the highest. From one or the first *kyu* (*ikkkyu*), the student graduates into the lowest of the *dan* (meaning "grade" or "degree") class, entitling him to wear the coveted black belt and to teach *randori*. In contradistinction to the *kyu* classification, the second *dan* is higher than the first *dan*, the third than the second *dan*, and so on, up to the seventh *dan*, of which there are probably not more than two or three holders throughout Japan, belonging, that is, to the Kodo-kwan school. After the student has won the black belt with the rank of *shodan* (first *dan*), he is gradually initiated into the esoteric branches of *judo*, which include *atemi*, or the art of striking and kicking vital spots, and *kwappo*, or methods of resuscitating one who has been rendered unconscious by strangulation or other cause. Among other things the graduate is required to undergo a decidedly trying ordeal which takes the form of both strangling and being strangled. Under the supervision of experts, each newly made *shodan* must lie limp and supine, offering no resistance to the choke-lock of another *shodan*, the while a time-keeper tells off the number of seconds it requires to "put him to sleep." The *shodan* who has performed the active rôle must then revive his victim by the recognised form of *kwappo*. The principal object of this ceremony is to strengthen the student's nerve and presence of mind, so that in a real emergency he may not be found wanting.

Proficiency in the art of *judo* is gained, as in most forms of sport, both by everyday practise and periodical contests for the various classes. At the Kodo-kwan, and kindred institutions, competitions are held every month or six weeks, while twice a year, in the spring and autumn, an all-day series of contests is given for the *ikkkyu* ("first *kyu*") and *dan* classes. These occasions are termed "*Kohaku shobu*," or "Red and White Contests," because the competitors are divided into two rival teams distinguished

by red and white colours. The leader of either team is usually of the fourth grade (*yodan*). A good showing at this form of contest is a great aid to rapid promotion. The skill and endurance exhibited are extraordinary, and in both the brown and black belt classes good wrestlers will sometimes throw five or six opponents in succession. In the usual monthly contests the maximum proportion of falls required for a victory is two out of three, but if the contest continues longer than a given time without a score on either side, the umpire may declare the first fall to win, or if that limit is exceeded, a draw is announced. On the other hand, in the Red and White competitions the first fall scored decides the contest, when the winner must meet the next man on the list, and retires only after he has been defeated or wrestled a draw. In the brown belt (*kyu*) class a win can be scored by a clean throw from a standing position, a choke-lock, or pinning one's opponent to the mat for a fixed time decided by the umpire; in the brown belt class recourse to bone-locks (*gyaku*) is prohibited as far as regular contests are concerned, though it is allowed in practice. Among competitors of the black belt class (*yudansha*) throws, choke-locks, bone-locks, and *osae-komi* are all permitted, and it not infrequently happens that bones are broken on these occasions. I can recall one Red and White Competition at which three elbows and two knee-caps were dislocated. When, as sometimes takes place, a good *ikkyu* meets a *shodan* (holder of the first *dan*), the former may resort to *gyaku* which, however, is forbidden to the *shodan*. Excitement runs high at these contests, especially towards the end of the day, when one side or the other is in the lead. Should it happen that the two team captains have to wrestle, the umpire has the right to extend the ordinary time allotted for competitors of lower grade, unless a decision has been reached beforehand. I have known two team captains to bout for an hour before a victory could be scored on either side, and it is in struggles of this kind that one sees *judo* at its best. Both the Red and White and periodical Kodo-kwan competitions are conducted with the greatest formality. The umpire is always an experienced *judo-ka* of the third grade or higher, and from his decisions there is no appeal. As the result of observation extending over many years, I do not hesitate to declare that although the Japanese have been accused, not always unjustly, of being poor sportsmen in Western games, they give little cause for criticism on their own ground. It might be too much perhaps to assert that displays of bad tem-



ONE PHASE OF ATTACK AND DEFENCE

per are unknown in either *judo* or *kenjutsu*, but certainly they are few and far between, and if carried to extremes meet with stern and speedy repression. The student of *judo* voluntarily submits to a rigorous discipline which makes for both his physical and moral wellbeing. Just as the best boxers are generally the men who possess self-control and live clean lives, so no Japanese can hope to excel in *judo* if prone to give way to bad temper or to over-indulge

in any shape or form. Now that freedom to practise the art is no longer confined to the samurai class but includes all sorts and conditions of young men, it is impossible to guarantee that there will be no black sheep in the fold; but applying the law of averages, I can honestly say that I could not reasonably ask for a finer, manlier set of young fellows than the *judo-ka* of the Kodo-kwan.

Nevertheless the superstition entertained



PARRYING A BODY BLOW



A WOMAN FENCER

in some quarters abroad that every Japanese is a *judo* expert must be dispelled. Perhaps the ratio of good *judo* men in Japan is not larger than that of good boxers in England or America, and as in the West, so in Japan, as a rule the best men are to be found among the student body and to a lesser extent among the police. On the other hand, the Japanese *judo-ka* probably trains far more systematically and zealously than the average Western amateur boxer. The majority of students at the Kodo-kwan attend daily from three or four to five or six P. M., year in and year out, until they win the coveted black belt. Many devote Sunday mornings also to the exercise.

It is my opinion, shared by all other foreigners who have devoted any attention to the subject, that *judo* is superior to all known forms of Western wrestling. *Judo* is essentially practical in its conception and proceeds upon the assumption that as a rule your adversary will be clad and that he will not always adhere strictly to Marquis of Queensbury rules. Therefore in practise the contestants wear a special costume made of strong cotton cloth, with long sleeves, and in theory nothing is barred, although in friendly bouts every care is taken to prevent accidents which, nevertheless, can not always be avoided. Anybody familiar with the arbitrary limitations of the Greco-Roman and, to a lesser extent, of the catch-as-catch-can, or free American styles of wrestling, will appreciate this distinction. Thus in *judo* almost every muscle of the body and limbs is brought into play and developed. Indubitably *judo*,

when systematically and conscientiously practised from youth up, produces a splendid type of physique characterised by a harmoniously distributed, all-round development, not always found among our own heavyweights of the mat in Europe and America, although the latter would generally greatly outweigh the *judo-ka*, or exponent of *judo*. With a fairly comprehensive experience of both the Western and Japanese types of physique, I am inclined to say that, owing in some degree,

no doubt, to the habit of squatting and to early training, the Japanese wrestler enjoys an advantage over the Westerner in the possession of comparatively more powerful loins, which play such an important part in *judo*. Undeniably many of our Western sports, like football, tennis, and rowing, develop the leg muscles, but strong as are the lower limbs of our European and American athletes, they generally lack the elasticity, the fluid quality, so to speak, of the thigh and buttock muscles of an expert Japanese wrestler. The relatively greater need for strength of loin in the Japanese as compared with the Western system of wrestling, especially Greco-Roman, must be apparent when we remember that under the rules of the latter the contestants may not lift their feet from the ground to trip an opponent. *Judo*, on the other hand, may almost be termed tripping *in excelsis*. A good *judo-ka* can use his loin ("koshi" in Japanese) with the force of a battering-ram to disturb his adversary's centre of gravity and throw him to the ground. After years of assiduous practice the *judo-ka* develops something almost in the nature of a sixth sense, which enables him instinctively to feel in what part of the body his opponent is concentrating his strength, when, with the swiftness of a reflex action, he will direct his attack against the unprotected area and score a victory. The Japanese language provides a multitude of technical terms to describe every phase of *judo*, both passive and active, physical and mental. Thus we speak of the "flailing" condition of our adversary's unprotected area, whether the upper or lower



AN OLD SWORDSMAN

portion of the body. And the repertoire of tricks in *judo* is so extensive that an expert is never at a loss to find a method of dealing with either. *Randori*, or free wrestling, for example, is subdivided into groups of tricks in which the arms, loins, feet, singly or in combination, are subtly utilised to bring about the desired result. Not every expert *judo-ka* could verbally explain the laws of leverage and balance, but in practice he is continually applying them with the maximum effect.

The question is constantly being asked, How does *judo* compare with boxing? No fair reply can as yet be given to this question, because only a contest which no police regulations nowadays would permit could ever decide the point. The so-called "tests" here-

school known to have been guilty of unjustifiable violence or rowdy conduct is promptly expelled. The rarity of such cases proves the effectiveness of the training given not only in relation to the body, but also in the formation of character. As bearing upon this latter phase of the subject, I must speak briefly about the distinctive summer and winter exercises which are part of the curriculum of the Kodo-kwan and other *jujutsu* schools. For the former, the hottest season of the year, from about mid-July to mid-August is chosen, and for the latter the coldest month, January, when daily the pupils start wrestling at four A. M. and keep at it until seven or eight A. M. The summer practice is called *shochu-geiko*, and the winter practice,

perhaps less to the Westerner than *judo*, but it is a genuine national growth and as eminently practical in its own way as *judo*. The weapon used in practice, to imitate as closely as possible the old two-handed sword of the samurai, is a stick called a *shinae*, made of three strips of bamboo bound tightly together, with a small round guard and a hilt large enough to accommodate both hands. It is usually about four feet long. In practice the performers are protected by masks and breastplates of strong lacquer and by gauntlets. In practice bouts striking at the legs is forbidden and the decisive points are the head, both sides, the right arm, and throat, the latter being virtually the only thrust permitted. The Japanese style may seem to lack the fineness and grace of the French and Italian rapier play, but of its value in real combat there can be no question. One good cut with a Japanese two-handed sword on any of the points cited would put the victim out of commission then and there. Although, I think, inferior to *judo* as a physical exercise, *kenjutsu* provides an excellent training for hand, foot, and eye. Japanese addicted to the sport can as a rule be detected by the abnormal development of their forearms. The principal native schools are the Shinkage, Shinto, Yagiu, Ono-ha-ito, and the Nito-ryu, the last named being practised with two swords, one for each hand, as invented by the famous Miyamoto Musashi during the seventeenth century.

I shall close this brief sketch of the principal Japanese arts of self-defence by hardly more than a reference to the native professional style of wrestling called *sumo*, which must on no account be confounded with *judo*. *Sumo* is usually practised professionally by men of great size, "mountains of fat and muscle," as Mr. Mitford (now Lord Redesdale) rightly calls them. The biggest are often considerably over six feet in height and three hundred pounds in weight. Properly speaking, *sumo* is not a defensive or an offensive system, but a test of skill and strength, like our Western styles of wrestling. Of course, among the twelve throws, twelve lifts, twelve twists, and twelve throws over the back which go to make up the repertoire of *sumo*, there are many, no doubt, that could be utilised in a genuine encounter, but as in our own popular styles the test of victory or defeat is artificial and arbitrary, consisting as it does in the ability of one of the contestants not only to throw his opponent, but to carry or push him beyond the boundary of the arena. Thus, other things equal, weight is the decisive factor, and the *sumo-tori*, or wrestlers, are therefore at great pains to cultivate it.



A WRESTLING MATCH

tofore held have been mere farces, since the boxer has had to wear gloves and the *judo-ka* has necessarily been obliged to abstain from employing tricks which, against an inexperienced antagonist, might entail very grave if not fatal consequences. Personally, I am convinced that given experts on either side, barring accidents, the *judo-ka*, with his far more extensive repertoire of tricks, ought to win in a fight to a finish. In Japan a good man of the third or fourth grade would think nothing of defeating half a dozen adversaries ignorant of the art, and had I space at my disposal I could cite several authentic instances where *judo* experts have fought successfully against amazing odds. But it must be added that the rules of the Kodo kwan are uncompromisingly strict against the abuse of this dangerous power, and any member of the

kangeiko. In this manner not only is the *judo-ka* inured to the two extremes of heat and cold, but also cultivates the virtue of perseverance, thus developing will-power. It is not too much to say that the revival of the samurai art of *judo* in this improved form has done wonders to reclaim the physique of young Japan, which was undeniably on the downgrade when Dr. Kano appeared on the scene. The Kodo-kwan as an institution has no money-making objects, but exists solely for the purpose of imparting a valuable art to the rising generation for a fee which barely suffices to support the place, and although regular *judo* teachers are paid for their services, they are not allowed to give exhibitions of their skill in public, if any charge has been made for admission, save for charity.

Japanese *kenjutsu*, or fencing, appeals



"GEISHAS"

XXVIII. JAPAN AS A TOURIST LAND

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JAPAN has become the wonder-land of the tourist. Ever since her unique social and political structure was rudely shaken by the guns of Western navies at Shimonoseki and Kogoshima, the interest taken in the Land of the Rising Sun has been absorbing and universal. The traveller has found there the charm, the mystery of an ancient civilisation, for whose manners and customs we have to go back to Pompeii and Herculaneum to find a parallel. Certainly, more for these than for the feverish rush of modern industrialism or her great achievements in arms has Japan drawn the tourist to her shores.

Let us first take a general glance at what the life was and can still be for him a few miles away from railways and the Open Ports. He comes to his journey's end after a day in the open air, transported by a *jinrikisha*—that "pull-man-car" of Japa-

nese roads—having men in the shafts with the limbs of athletes. He is made welcome at the threshold of the inn by both master and servant; he leaves his boots behind him at the entrance; his room is devoid of what we call furniture, but he stretches himself on the spotless mats, while a waiting-maid, always bright and cheerful, brings him a tiny cup of refreshing, unsweetened tea. Later, the bath is ready for him, followed by a simple dinner of soup, fish, vegetables, and rice, laid out on miniature tables. While he deftly plies the chop-sticks, the maid is there to replenish his rice-bowl and, should he understand the language, beguile the time with the chatter and gossip of the "petty burgh." Finally, the *futon*, or mattress, is brought in and spread over the mats—sitting-room, dining-room, and bedroom in one. He "turns in," again hears the thoughtful inquiry if all is to his

satisfaction, and a last gentle "*O yasumi nasai*," or "Pleasant rest to you." Is it a matter for wonder, then, that he composes himself to sleep with the reflection, it may be, that there is an element of comfort in this, a something in the philosophy of living that Europe and America with their huge hotels and groaning machinery have not attained? Indeed, it is this idyllic simplicity, together with the natural charm of the people, that has left such a pleasing impression on generations of visitors.

Next morning the traveller takes a walk along the street of this country town, for he is off the beaten track. It is a lengthy line of wooden houses with open shop-fronts, and nothing very remarkable in them, just the common articles of everyday use. The *fac similes* of the dainty cabinets which adorned the niches of the rooms of the Duchess of Portsmouth in the time of



"THE WAITING MAID"

Charles the Second are not to be seen there, nor will he meet with specimens of porcelain like those with which Mary, the consort of William, Prince of Orange, amused herself in embellishing Hampton Court during the mania for collecting china from the Far East. He will have to go to the big cities or the open ports—to Tokyo, Kyoto, Yokohama, or Kobé—for these and other art treasures so eagerly sought by connoisseurs. We are in Old Japan, the Japan that lives and thrives still in spite of the rapid extension of the railway system, the introduction of electric tramways, and the electric light.

That these Western innovations have effected vast change in almost every phase of native life is readily apparent. The tourist can now travel through the country without being subjected to unfamiliar conditions, which, though often interesting, may sometimes be not altogether congenial. Let it be said at once that Japanese inns lack what we regard as comfort; they are, for instance, open to every wind that blows, draughts which we abhor are a joy to the Japanese, there is no real privacy, the sanitary arrangements leave much to be desired, while except for youth and supple limbs,

squatting on the floor is not an ideal means of resting. Nor is eating with chop-sticks (though one finds pleasure in their cleanliness), instead of knives and forks, an accomplishment to be acquired in a day. Yet, for the curious, some experience of such a mode of living can always be obtained by a visit to one of the attractive tea-houses or restaurants that abound in every town.

What about the home life of the people? The tourist complains of seeing so little of it and is often at a loss to account for a seeming lack of hospitality in a people renowned in literature for that virtue. The fact is that society, as it exists in the West, is unknown in the Orient; there is ceremonial visiting and feasting of intimate friends, but otherwise little to compare with the social amenities of Occidental lands. This has led various writers, Lafcadio Hearn amongst them, to make the curious assertion that the inner life of the people still remains a sealed book to the stranger. If by inner life is meant the soul, the hidden sources from which flow the elements that constitute the special characteristics of the race and of which a knowledge can only be acquired by prolonged study of the history and language, the statement may not be contested. In all other respects it is fallacious. The ordinary work-a-day life of the Japanese is openly revealed; it is there for all to see. A stroll along the main street of any town on a summer day will show, from the open shop-front, the family sitting at their meals or at work and, at the same

time, give you a glimpse through the house to the tiny garden beyond. There are no veiled mysteries, no secret cupboards. Plots and conspiracies, such as we are familiar with, are unthinkable things in Japan, because of a mode of living where concealment is so difficult. Every pickpocket, of any notoriety in his profession, is said to be known to the police. You may realise this should you happen to be relieved of your gold watch; the chances are ten to one that it will be restored to you within twenty-four hours. The same may not be asserted of your purse! For this and cognate reasons Tokyo, the capital, is, for its size, the safest of any of the great cities in the world for one to roam about in at any hour of the day or night.

On two important points sufficient stress is never laid in treating of Japan as a tourist land—first, the time of year at which it will be found at its best; and second, the climate. There is a deep-rooted impression that Japan lies in the tropics and that it is bathed in continual sunshine. Except for a part of July and all of August, and a rainy season during June, there is not much else to recall the hotter parts of the earth. The climate, however, differs in one respect from that of England, for instance, in so far as, when it rains, it may continue without intermission for several days. Showery weather is almost unknown. A visitor unfortunate enough to choose a week of rain and gloom for his little tour is not likely to be enthusiastic over his experience, and such is the fate of many.



DANCING GEISHAS



GEISHAS ENJOYING A JAUNT IN THE COUNTRY

Japan is at her best in Spring, from the first days of April till well on in May; again in late October, throughout November, and often up to Christmas and New Year's time,—the former period for its succession of flowers and gay outdoor life, the latter for its bright cloudless skies and the colouring of the wooded uplands. It is worthy of note that the crowds who flock every summer to the famous mountain resorts of Karuizawa, Nikko, Unzen, etc., are not composed of tourists, but of residents of Japan and other parts of the Orient—South China, Singapore, etc.—in search of rest and recreation.

Geographical and historical considerations, together with the facilities of modern travel and the wide-spread knowledge of the English language, render Japan peculiarly easy for the tourist to take on his way, it may be, round the world. There need be no retracing of one's footsteps. Mr. Gerard, late United States Ambassador to Germany, tells us how in a few hours in Europe it is possible to

travel in an automobile across country where people differ violently from the countries surrounding them, not only in language, customs, and costumes, but in methods of thought and physical appearance. Japan, on the contrary, presents a singular homogeneity. From one end to the other, for a distance of 1,400 miles, the people speak the same tongue with only slight dialectic divergences, manners and customs vary scarcely at all, even the scenery of Nambu in the north—a succession of mountains, valleys, and rice-plains—much resembles that of Satsuma in the south. Volcanoes active and extinct are found in both. The few aboriginal Ainu inhabitants, whose physical features are more akin to the European than to the Japanese, scattered about the Island of Yezo (now known as Hokkaido), are of interest only to the anthropologist. Hence it is not essential in Japan, as it would be in China, for instance, to travel extensively, to wander in remote parts, in order to gain anything like a comprehensive knowledge of the people.

The question of the length of time to be given to one's stay is, however, an important factor. A trustworthy authority suggests two or three weeks for ordinary sightseeing; more serious observation may require months. Our point of view is that of the former.

Now that the automobile is available at every popular spot the matter of roads suited to that mode of locomotion looms in importance. Cars are not infrequently brought by tourists themselves to Japan for touring purposes; but, taking it altogether, the roads, with few exceptions, are not well adapted to them. Unfamiliarity with native ways, though another obstacle, may largely be overcome by the employment of Japanese guides or chauffeurs. Roads and bridges, swept away by the floods which now and then devastate the land, are long left unrepaired, while the roads in the more hilly parts are apt to be much neglected at all times.

With the spread of railways and tramways the jinrikisha, once ubiquitous, has disappeared from rural parts, though in busy



PARK VIEWS AT NARA

centres it still continues to be a convenient method for making short trips and for shopping.

It may here be remarked that the policy of centralisation which set in after the Court removed from Kyoto to Tokyo had the effect,

not only of attracting most of the wealth and intellectual energy to the new capital, but of reducing provincial life to the dulllest of routine existence. The old feudal chiefs,—the historic daimyos,—now that they possess permanent residences in Tokyo, rarely visit

their former domains, so that nothing exists at all approaching to British squirearchy or country gentry life.

The traveller will usually either touch first at Yokohama, after crossing the Pacific in one of the luxuriously fitted steamers of the Canadian Pacific Ocean Service, the Toyo Kisen Kaisha, or the Pacific Mail Company; or else he will be landed at Kobé—rarely at Nagasaki—by one of these liners or the equally well-known boats of the Nippon Yusen Kaisha. The latter simply involves a reversal of the following order of doing things.

The two cities of Tokyo and Kyoto, with their adjacent seaports of Yokohama and Kobé respectively, one in eastern Japan and the other in the west, form good centres from which to make excursions to places and from which to see things worth seeing. All the towns just mentioned possess excellent hotels in foreign style, as well as shops. But one must be careful not to judge Japan by what is seen in the so-called “Foreign Settlements” in the Treaty Ports, at which the traveller often stays for but a few hours while *en route* to China, Manila, or other parts of the Far East. They originated in the early days of foreign intercourse, when trade and residence with the alien were confined to narrow limits.

Tokyo lies eighteen miles by rail from Yokohama. It claims neither the historic interest nor the charming situation for which Kyoto, the old capital, is renowned, but it is the city that affords the most varied aspects of modern social and political life. There reside the Emperor and Empress and the members of the Imperial Family, who twice a year entertain the Diplomatic Corps, the *élite* of Japanese society, and distinguished visitors at a garden party in one of the subsidiary palace grounds, the first in spring for viewing the cherry blossoms and the later one in autumn for the show of chrysanthemums. The theatres, museums, and exhibitions—paintings, industries, wrestling, etc.—are, of course, the finest of their kind in the country. Permission to inspect the various educational and other institutions not open to the general public, is freely granted to those furnished with proper introductions. On the whole, Tokyo is not without a beauty of its own, especially in the early half of the year, when it is radiant with blossom and verdant foliage.

Save for the mausolea of the shoguns situated in Shiba Park, time need not be set aside for temple viewing, as a trip to Nikko, the incomparable, if only for two or three days, must not be omitted,—Nikko, “a glory of nature and art,” where stand the tomb of Iyeyasu, the founder of the Tokugawa dynasty, and the gorgeous shrines dedicated to his memory. They are amongst the most



NIGATSUDO TEMPLE, NARA

perfect specimens of religious architecture in Japan, and are approached by magnificent avenues of gigantic cryptomerias. This sacred spot stands about a hundred miles from Tokyo by rail. If fatigued by much art and legendary lore at Nikko, a welcome change may be obtained by an excursion on horseback, or by jinrikisha, to Lake Chuzenji and the pretty waterfalls in its vicinity.

Nothing of much interest to the casual tourist is to be found north of Nikko. True, the pine-clad islets of Matsushima, one of "The Great Sight" of Japan, lie another hundred miles farther in the same direction, but it is a conventional beauty spot in a land enslaved by convention, and with so much to see elsewhere, it may well be omitted. Of the other so-called "Great Sight," the sacred island of Itsukushima, near Hiroshima, in the west, alone merits a visit. It, however, is reached from Kobé, and if made by steamer, the trip thither affords at the same time, an excellent panoramic view of the Inland Sea.

Returning to Tokyo or Yokohama from Nikko, a day should be given to Kamakura, once the site of the capital of eastern Japan, for the sake of the world-famed image of the Daibutsu, or "Great Buddha," which stands there, and other lesser sights. Kamakura itself has, of late years, become a fashionable seaside resort for both the Japanese and the foreign resident.

Few places in Japan present better opportunities for studying the manners and customs of the people than the natural hot spring resorts which are found chiefly in the more

mountainous parts. Some of these possess fine, modern foreign-built hotels for the accommodation of the tourist, whilst the Japanese live apart in their own specially constructed hostelryes.

Within easy reach of Yokohama, either by automobile or by train, tramway and jinrikisha, Miyanoshita, with its noted hotel, the "Fuji-ya," should on no account be missed. It can be taken on the journey westward to Kyoto, and whether for novelty and scenic charm or for rest after days of strenu-

ous sightseeing, the change will be found delightful. There are, besides, numerous short excursions available from Miyanoshita, notably to Lake Hakone and the solfataras in the immediate neighbourhood.

When the ascent of Fuji, "the peerless mountain," is practicable in late July and during August, Miyanoshita makes a good starting-point, guides and coolies being there obtainable. Let it be borne in mind that the expedition to Fuji calls for nothing beyond simple endurance and the power of withstanding a highly rarefied atmosphere; of climbing, properly so-called, there is none. Of real mountaineering such as the "Japanese Alps" afford, there is no lack, but the subject demands special treatment.

The leisurely disposed tourist in continuing his journey westward may like to break it at the large and prosperous town of Nagoya. Its chief sight is the Castle, in perfect repair, with fine suites of apartments, decorated by artists of the Kano School of painting, and formerly reserved for the use of the shogun. Some of the rooms are never shown to visitors because of being occasionally occupied by H. M. the Emperor.

It is possible, by diverging and taking a branch railway at Nagoya, to visit the celebrated Shinto shrines at Ise. The buildings there are after the usual Shinto pattern—plain, unornamented, wooden structures, representative of the most archaic style of Japanese architecture, but they are to be viewed only from the outside. As has been aptly said of them: "There is nothing to see and they won't let you see it." The chief shrines stand in noble



FUJIYAMA, FROM KAWAGUCHI LAKE



HOT SPRINGS NEAR FUKUSHIMA

parks timbered with a wealth of glorious cryptomeria, camphor, and maple trees.

Kyoto, the ancient capital before the Restoration of the Mikado to absolute power,

is by far the most fascinating of all Japan's cities, for it realises to-day, in spite of modern innovations, the ideal formed from descriptions of the country by old writers and which one wishes to verify—the quaintness, the charm, the colour, the marvel of an alien and unique civilisation. Nothing can rob Kyoto of its delightful situation, surrounded as it is by wooded heights, nor so long as the ancient palaces and temples remain can its historical associations fail to interest the serious student. Specimens of the achievements of the nation's greatest artists and painters will be found amongst the temple treasures, while the landscape gardens are dreams of beauty. The natural beauty of the landscape supplies a setting for the handiwork of man, which spring enhances with clouds of tinted cherry blossoms, and autumn glorifies with its gorgeousness of maple colouring.

A hurried stay in Kyoto is a misfortune, for time and leisure should be at one's disposal not only to see its sights but to inspect the various art industries for which the city is famed. These latter embrace pottery and porcelain, bronze, lacquer, embroideries, brocades. Curios, both old and new, deplete



DOTAN-BORI STREET, CINIMA THEATRE DISTRICT, OSAKA



A JAPANESE CEMETERY

the purses of those—and few escape—who are lured towards them

Nowhere else in Japan are the religious festivals (*matsuri*) in connection with the popular shrines and temples maintained in greater splendour. At some of the temples, too, the old-fashioned custom of the *cha-no-yu*, or "tea ceremony," is displayed for the delectation of visitors. The dancing by *geisha* in spring and autumn, emblematic of

floral life, is quaint and pretty and forms a special feature at those times.

The traveller desirous of visiting the palaces which are not accessible to the general public must not fail to be provided with the permits, usually obtainable by application to one's own embassy in Tokyo.

Among pleasant excursions in the environs are those to Lake Biwa and to Nara, the former made from Kyoto and the

latter preferably by making a stay at Nara itself. Nara, the capital of Japan from 700 to 784 A. D., is a *multum in parvo* for ancient art and architecture, if one has not had a surfeit already of what Kyoto provides in abundance in that respect.

The great city of Osaka with its forest of chimneys and its pall of smoke, so unlike any other place in the Empire, will detain only those interested in manufactures and commerce. It is the Manchester of Japan. The old Castle, whose buildings were completely destroyed by the Tokugawa troops in 1868, is a noteworthy relic of feudal days. The cyclopean granite walls attest its former strength.

Kobé, with the adjoining large town of Hyogo, is the most flourishing of the Treaty Ports, and shows in its rapid growth from insignificant beginnings in 1868, what foreign trade has done to develop the resources of the country. The "Foreign Concession" is a model of its kind, being well laid out with spacious streets. But a fine situation sheltered from the northern blasts and a comparatively dry climate are in themselves not sufficient to keep the tourist long away from the manifold novelties and attractions of Kyoto and its neighbourhood, with the historic interest of centuries behind them, lying within such easy reach.

As already indicated, Kobé is the starting-point for the Inland Sea by whose islet-studded waters one proceeds to their western gate at Shimonoseki and thence into the Korean Straits on to Nagasaki. It is at Shimonoseki that those bound for Korea, Manchuria, and North China leave the shores of Japan, and for them it is more convenient to go by rail from Kobé, as the big trans-Pacific liners do not touch at Shimonoseki. The railway journey, though not devoid of scenic beauty, is long and apt to be tiresome.

The Island of Kyushu, which is separated from the mainland by the narrow straits of Shimonoseki, is picturesque throughout, but has no hotels approaching the standard of the places hitherto described. The solfataras at Unzen in the Shimabara peninsula afford good accommodation in foreign style, as does the hot spring resort of Beppu on the east coast of the island; but the latter lies off the beaten track of the tourist itinerary. The important towns of Kumamoto and Kagoshima, celebrated for the part they played in the last rebellion against the new order of things, furnish only Japanese inns.

Nagasaki, with its memories of the old Dutch traders, the Portuguese missionaries, and the days of our early intercourse with the Island Empire, calls for little comment from a traveller's point of view. The steamers



STONE BUDDHAS BY A ROADSIDE

usually remain in port but a few hours for coaling purposes, during which a jinrikisha drive through the narrow streets will suffice for all there is to see. Pierre Loti, it must be remembered, was not a globe-trotter.

As we leave the beautiful landlocked harbour of Nagasaki with the islets guarding it, the shores of Dai Nippon soon fade from view and we settle down to prepare for other and vastly differing sights and sounds.

NIKKO

THE Japanese speak in affectionate and extravagant terms of their famous town of Nikko, unquestionably one of the most beautiful spots in the Orient, and with the natural beauties of the place accentuated by the fact that Nikko is a repository of ancient Japanese art, it is not surprising that the town has become such a popular point in the itinerary of the tourist. The Japanese have a saying, "Don't use the word 'splendour' until you have seen Nikko."

The town is the terminus of the Utsunomiya-Nikko branch line, and is situated in northeastern Japan, about 90 miles from Tokyo, the railway journey occupying about four and a half hours. It lies in a most attractive setting of scenery and presents to the lover of beauty a wonderful vista of mountain, cascade, sparkling streams, lovely lakes, and ancient trees. Naturally gorgeous in its surroundings, Nikko has been enriched



KIRIFURI WATERFALL

by the cunning craftsmanship of the Japanese, and presents a delectable scene in which to spend several days. Commercially, the town has no great importance. The population is under 20,000. But Nikko has historical associations, and a general attractiveness that have raised it to a position of eminence among the lesser towns or cities of Japan.

Nikko itself possesses several remarkable features. It was first brought to public attention in 766, when Shodo-Shonin penetrated the mountains, intending to reach the

summit of Futarasan. He was unable to accomplish his object, and remained in the forest, practising ascetic exercises for fourteen years, finally reaching the top of the mountain in 781. Shodo-Shonin founded several temples at Nikko and attracted to his retreat a band of devotees, who were later followed by regular settlers. In course of time Nikko became a famous religious centre, and many temples were built, the first shogun taking a keen interest in the development of the site. The town became still more famous as the burial place of Tokugawa-Iyeyasu, the founder of the Tokugawa shogunate, whose remains are interred there. His grandson, Iyemitsu, who succeeded to the shogunate, erected the magnificent mausoleum which took twelve years to complete, and is reputed to have cost Yen 17,000,000. This gorgeous shrine became the special charge of successive princes of the Imperial Family, who were known as Prince-Superiors. This custom was maintained until the collapse of the shogunate in 1868, when the shrine became the charge of the Imperial Government, which has recognised certain Shinto temples and sacred places as State institutions. Apart from this great mausoleum, Nikko possesses an abundance of wealth of Japanese architecture of various periods. There are three- and five-storied pagodas, the Sacred Cistern, the Drum Tower, and other features always of interest to the tourist or the lover of art. The temples are amongst the most ancient in Japan.

Nikko is attractive at all seasons of the year, but particularly so in the spring and the autumn, while as a summer resort it has become quite popular, on account of the mildness of the climate. Here one may also see, at different seasons of the year, the most ancient religious and other festivals. The town is also famous for its beautiful avenues of cryptomerias, which extend for a distance of 24 miles. These beautiful trees are over 300 years old, and visitors rarely miss the opportunity of walking the whole distance to enjoy to the full the enchanting aspect of the beautifully bordered highway into the town. The environs of Nikko, and the adjacent scenic beauties give the town as much of its splendour as the sights within its boundaries. Lake Chuzenji, one of the most entrancing visions in Japan, lies about ten miles distant, and the neighbouring mountain ranges are a perpetual glory to the place. About 15 miles away is the famous Ashio Copper Mine, worked by the Furukawa family. This mine and the smelting and refining works, give the district about the only industrial interest that exists for it, the town of Ashio having a busy population of 30,000 people, four-fifths of whom are miners.



SHINTO TEMPLE FESTIVAL DAY AT NIKKO



A WINTER SCENE AT KINKAKUJI, KYOTO

XXIX. THE CITY OF KYOTO

THE OLD CAPITAL—KYOTO IN MODERN TIMES—MUNICIPAL FINANCE— INDUSTRY AND COMMERCE

THE city of Kyoto, known as the ancient capital of Japan, a distinction it enjoyed for more than eleven hundred years, was founded by the Emperor Kwammu in 781 A. D. In the long course of her history Japan has had many capitals, more than sixty in all, it is said, due to the fact that in ancient times there was a superstitious dread of any place where death had occurred. Just as the sons of a dead father had to build the family a new house if the father died in the old one, so when an emperor passed away his successor had to find himself a new capital. With the advent of a more permanent civilisation from China and the rise of great temples and other institutions, the inconvenience of removing the capital with each accession to the throne began to be felt, and we find that Nara remained the national capital through eight reigns. When the Emperor Kwammu came to the throne he found the Government indulging in grave irregularities under the aegis of a corrupt and lax officialism, nor was

the condition of religion much better, and so he decided to get away from it all by establishing a new capital on the river Kamo at the foot of beautiful hills which he had learned to admire during his hunting trips.

THE OLD CAPITAL

Kyoto is one of the few cities of the world that did not rise by chance, as it was duly planned, and the plan carefully carried out. Under the famous architect, Kiyomaru, the new city was skilfully designed, the site being an extended parallelogram, with a central avenue leading to the imperial palace. One side of the main avenue was known as the Sakyo, or left city, and the other was called the Ukyo, or right city, each side to contain nine *jo*, or, in all, about 14,832 houses, the streets running at right angles from east to west and north to south, 1,216 streets in all. The central avenue was 280 feet in width, and the adjoining streets from 170 to 120 feet, the minor streets being from 80 to 40 feet wide. The new capital was, indeed, the model of a

Chinese city, surrounded by moats ten feet wide, flanked by high walls. Traversing the city were eight canals excavated for ornament as well as transportation purposes, of which but one now remains. At the entrance to the central avenue was a great gate, storied and roofed with tiles. The imperial palace stood between the first and second *jo*, or city blocks, facing the south, with a frontage of 4,600 feet, and a depth of over 3,000 feet. The imperial apartments were in the centre of the building, with rooms and offices for courtiers and officials all around. The expense of constructing the new capital was borne by the various provinces, the 12 gates of the city being special gifts from feudal lords.

Æsthetically, at least, Kyoto has remained through the centuries much what it was at the beginning. Antiquity and imperial dignity still possess Kyoto in a marked degree, as well as great natural beauty, and the sacredness of the place to the Japanese mind may be inferred from the fact that the rulers



HIGASHI HONGWANJI, THE LARGEST BUDDHIST TEMPLE IN JAPAN — KIYOMIZU TEMPLE, KYOTO — THE CHIO-IN TEMPLE AT KYOTO —
 ANOTHER VIEW OF KIYOMIZU TEMPLE — KINKAKUJI TEMPLE, GOLDEN PAVILION, KYOTO

of Japan are still crowned there. It would, indeed, be difficult to imagine a more superbly situated city than Japan's ancient capital. But the changes and vicissitudes of time have done much to remove some of its material splendour, for it has been decimated by fire time and again, and each time the rebuilding has been on an inferior scale. Ashikaga Takauji, Oda Nobunaga, and Hideyoshi Toyotomi all tried to beautify the capital and make it a worthy imperial city, but wars raged round it and pestilence came at times to quench the ardour of the citizens. Population gradually moved toward the Sakyo, or left district of the city, and so the Ukyo, or right side of the old capital, has completely disappeared, being now but a planted field. The Kyoto of to-day is less than half the size of the ancient capital, and when the Emperor removed to Tokyo, a decline naturally set in for Kyoto.

KYOTO IN MODERN TIMES

WHEN the Emperor Kwammu founded his capital he called it *Heianjo*, the City of Peace,

and though it has seen stormy times in the course of its long history, Kyoto is still a place of delightful tranquillity. On three sides are yet the beautiful, well-wooded mountains, looking down on the peaceful streets. A great part of the city's area seems still given up to temples, palaces, and pleasure grounds. The Japanese like to erect their sacred edifices in groves of stately trees on the hillsides or in picturesque spots along the mountain ranges, their gilt or burnished copper decorations rising through the dark green of the envining cryptomerias with impressive effect. The modern city of Kyoto covers an area of some 18 square miles, the Kamo River penetrating it from the north and the Katsura River on the west, with the Takase between. The present population of Kyoto is about 510,000, more than twice the number of a century ago. As a place of scenic and historic interest, the old city can never lose its charm either for Japanese or foreigners. The establishment of lines of communication, the development of numerous industries, especially those of an artistic

nature, as well as the natural beauty of the place, all combine to preserve, if not to bring back, something of its ancient glory, and to attract all who appreciate lovely things.

As to government, the municipality has its mayor and city council, as other cities of Japan. Only, perhaps, it may be said that the municipal officials of the old capital are men of keener artistic appreciation than most of such officials usually are. Kyoto is fortunate in having men at the head of affairs who realise the city's possibilities from a historic and æsthetic point of view, and try to have their city take full advantage of its prestige.

MUNICIPAL FINANCE

FINANCIALLY the old capital is not so prosperous, perhaps, as cities like Osaka and Tokyo, where commerce and industry are making greater progress, but Kyoto has considerable wealth and manages to meet its obligations without embarrassment. The city is well provided with communications, having its canal running through the streets, and another running to Lake Biwa, which



SHIGODORI, THE BUSIEST STREET IN KYOTO



A BEAUTIFUL PRIVATE GARDEN

existed even before railways. The main lines of the Imperial Government Railway now meet there, while an electric tram system connects the city with Osaka. When the time comes, as it no doubt will, that Kyoto becomes a residential centre for Osaka millionaires and prosperous merchants, the prospects of the city financially may be brighter, though artistically it may suffer. Kyoto is

well lighted with electricity and is admirably governed. The amount of annual revenue is a little below 5,000,000 yen, while the city's indebtedness in foreign loans is 19,500,000 yen, contracted mainly for waterworks, street improvements, and tramways. Though Kyoto can not boast of the wealthy citizens that Osaka and Tokyo can, it nevertheless may be regarded as a wealthy city for Japan and its



HOZU RAPIDS AT KYOTO

citizens show a good deal more public spirit than in most cities of the Empire. In 1915 the revenue and expenditure of Kyoto were as follows:

| RECEIPTS | |
|----------------------|-----------|
| Sources | Yen |
| City properties..... | 2,176 |
| Fees..... | 73,567 |
| Subsidies..... | 75,003 |
| Legacies..... | 3,050 |
| Taxes..... | 1,202,242 |
| Other receipts..... | 129,837 |

| EXPENDITURE | |
|-------------------------|---------|
| Objects | Yen |
| City office..... | 187,706 |
| Public works..... | 182,762 |
| Public instruction..... | 250,655 |
| Sanitation..... | 247,204 |
| Bounties..... | 83,926 |
| Interest on loans..... | 22,838 |
| Loan account..... | 150,000 |
| Miscellaneous..... | 402,626 |

In addition, there was an estimated outlay of about 4,000,000 yen on canals, waterworks, tramways, and interest on loans. Already some 6,316,122 yen have been spent on canals and a water-power system for producing electricity, which are now nearing completion, if they are not already finished. The canal is for purposes of transportation and to supply the hydro-electric plant of the city. The city waterworks is a separate undertaking, completed in 1912 at a cost of 3,000,000 yen, of which 750,000 yen came from the national treasury. The water for the city is drawn by special canal from Lake Biwa and is sufficient for a population of 500,000. The city electric tramways have a mileage of fourteen, carrying an average of 24,000 passengers a day, and the annual receipts in 1915 were 839,935 yen. The system was completed at a cost of 10,379,212 yen. The liabilities of the municipality are as follows:

| | |
|--------------------------|----------------|
| French Loan..... | 19,500,000 Yen |
| Municipal Loan..... | 1,200,000 Yen |
| Park Extension Loan..... | 50,000 Yen |
| Total..... | 20,750,000 Yen |



LIGHTERS CONVEYING TEA TO STEAMERS LYING OFF SHORE



KYOTO LEADING BUSINESS MEN

(Upper) Mr. T. SHIMADZU, Managing Director, Shimadzu Seisakusho, Ltd. (Middle Row) Mr. YUZO KAMI, Managing Director, Nihon Chozo Ginko—Mr. H. FUNASAKA, Managing Director, Kyoto Orimono Kaisha—Mr. GENZO SHIMADZU, President, Shimadzu Seisakusho, Ltd. (Lower) Mr. G. OTANI, President, Hyogo Prefectural Hypothec Bank

INDUSTRY AND COMMERCE

THE admirable commercial museum established in Okazaki Park by the citizens of Kyoto indicates what the population is doing in the way of art, commerce, and industry. It would, indeed, be difficult to imagine a better way of displaying the beautiful products of the district, which include ceramics, embroideries, silk tapestry, and other exquisite silk fabrics and brocades unrivalled elsewhere. Every possible effort is being made not only to secure and retain for the benefit of the public all the fine examples of early Japanese arts and crafts, but also to improve by the aid of scientific and experimental institutions the production of all classes of modern Japanese manufactures, some of the most attractive of which are produced at Kyoto.

Among the more famous products of the district are the rich brocades woven at the Kawashima factory, than which no creation of the weaver's art can be more beautiful. These fabrics, known as *tsuzure-nishiki*, are a form of woven embroidery, employed with advantage by the wealthy and the great for the decoration of walls and ceilings of palatial apartments. The accomplished artists employed in this establishment can produce any scene from nature or life. The magnificent piece of silk tapestry presented by the late Emperor of Japan to the Japanese room in the Peace Palace at The Hague, was woven in the Kawashima factory, where there is one loom capable of producing fabrics fifty feet wide. Some of the exquisite historical scenes in the panels of the imperial palace

were also woven here. Of course, weaving is one of the oldest of Japanese arts, and has been a specialty of Kyoto for more than a thousand years. The industrial history of the city would, in fact, be a history of the finest textile fabrics of the Empire. Besides silk tapestry weaving and embroidery, there is silk cord making, lace work, porcelain, lacquer work, fans, metal work, cloisonné enamel, dolls, toys, trays, gold and silver goods, umbrellas, needles, paper, copper sheeting, and others too numerous to be recorded here. Kyoto has over 10,000 artisans of skill working in more than 200 factories, and there are about 400 great commercial corporations in the city, with a capital of over 52,000,000 yen. The city Chamber of Commerce is an intelligent and energetic body of men, anxious to promote the commerce and industry of their city. The annual value of the city's industrial output is estimated at 20,000,000 yen, of which 1,000,000 yen represents cotton, 2,500,000 yen porcelain, 600,000 yen paper, and 500,000 yen lacquer.

Kyoto is also a noted educational centre, having an Imperial University, a national high school, a great Christian university called the Doshisha, and many other schools.

THE JAPAN SAVINGS BANK

THIS institution was originally known as the Kyoto Savings Bank. It was established on May 25, 1893, with a capital of Yen 100,000, and its policy of encouraging thrift amongst the workers and others quickly found favour, and led to the bank becoming a popular concern. Branches were opened in several places, and a general extension of business necessitated increases in the capital. This was raised to Yen 500,000 in November, 1913, and finally to Yen 800,000 on May 27, 1916. At this time the Taisho Savings Bank, Ltd., of Awajieho, Higashi-ku, Osaka, was amalgamated, and the name of the joint concern was changed to the Japan Savings Bank. In every sense the bank is one for the people at large. Deposits as small as 10 sen are



HEAD OFFICE OF THE JAPAN SAVINGS BANK, LIMITED, KYOTO



INTERESTED ONLOOKERS AT A SCHOOL DEMONSTRATION

accepted, and liberal interest is paid, though at the same time the public's money is most carefully invested, in the highest grade of securities, no speculative risks being taken. There are nine branches in Kyoto and fourteen in Osaka, a staff of 152 clerks and others being employed. The Directorate consists of Messrs. Y. Kami (Managing Director), R. Imanishi, Y. Uyeda, and T. Takakura (Manager). The Auditors are Messrs. K. Yendo, K. Uyeda, and H. Mori. The head office is at No. 401 Karasumaru, Matsubara, Shimokyo-ku, Kyoto,

INABA CLOISONNÉ WARE COMPANY

No art store in Japan is better known to foreign visitors and lovers of the beautiful

than "Kin-un-Ken," at Kyoto, which is the store of Mr. Hiroichi Inaba, whose cloisonné ware factory and showrooms are indeed a sight well worth seeing. Mr. Inaba is an authority on the beautiful work of which he is a maker. From his researches it appears that the method of manufacturing cloisonné ware in Japan was transmitted from China about 850 years ago, but nothing in detail can be ascertained, as there are no relics of the earliest work. In 1871, Mr. Ozaki, master of the Kin-un-Ken, made cloisonné as a trial. At first the raw material was earthenware, but gradually copper came into use. In 1874 the Chemical Bureau was established at Kyoto, and physical and chemical investigations were made under the direction of Mr.



CHOICE SPECIMENS OF CLOISONNÉ WARE IN THE SHOWROOMS OF KIN-UN-KEN
(KYOTO CLOISONNÉ WARE COMPANY)

Wagner. Part of the work of this bureau was the study of the making of enamel for cloisonné ware. Mr. Y. Momonoi, of Aichi Prefecture, was Mr. Wagner's assistant. They prepared an enamel and distributed it to all the people engaged in the making of cloisonné and similar work, which gave a great stimulus to the manufacture of cloisonné, and a considerable improvement was effected in the shapes, designs, hardness, lustre, fineness, and finish. A special improvement was noticed in the "lineless cloisonné," which was invented by Mr. Namikawa of Tokyo.

In 1897 silver was used, and transparent enamel was applied on this metal, while at about the same time red iridescent cloisonné made its first appearance. This was produced by applying red enamel on copper material. The next development was the production in 1899 of silver-plated cloisonné. Transparent productions were made in 1907, the method being to apply acid preparations on copper. The manufacture of cloisonné falls within the fine arts, so that it is rather hard to make it a business under the ordinary industrial system, and consequently it is not possible to start a large company for the exploitation of the great popularity of this beautiful ware. Cloisonné can only be made by artists who have been carefully trained and who have some natural skill for the work. But so far as it is possible to conduct the making and sale of cloisonné as a business, this has been well done by the Kin-un-Ken.

The business controlled by Mr. Inaba was founded by Mr. Ozaki in 1871, and was transferred to its present owner in 1888. In 1902 the late Emperor Leopold of Belgium favoured the firm with an order for making cloisonné for the imperial household at Brussels. In 1900 Mr. Inaba was awarded the silver medal at the Paris Exposition, and he has also received many other awards for the beauty and exceptionally high quality of his work.

The works and the beautiful showrooms of the Kin-un-Ken are at No. 12 Sanjo, Shinakawabashi Kyoto.



A BUDDHIST CEREMONY

XXX. RELIGION

HISTORICAL OUTLINES—SHINTO—CONFUCIANISM—BUDDHISM—CHRISTIANITY

THERE are those who aver that the Japanese are not a religious people, but the fact that Japan has more religions, sects, and cults to the square acre than perhaps any other country of modern times may be taken to indicate the reverse of this statement, while almost every year sees new religions, or sects of old ones, emerging into prominence and claiming official recognition. In Japan every religious society must gain the formal acquiescence of the Government before it can lay claim to the legal status of a religion and hope to be successful in the propagation of its tenets. Religion is free, but not to the extent of setting forth doctrines considered dangerous to the State: hence the necessity of acquiring official status.

As all religions can not be equally true, nor prove equally worthy of public confidence, one might be disposed to assume that a people who welcome so many religions really have faith in none. But the Japanese are not only a very pragmatic people, but persistently pantheistic, and as God is everywhere and in everything, one religion may have as much divine truth as another, as they are all different ways of reaching the same end. The proof of a religion is in its utility, especially for national purposes. As

no man can claim a monopoly of the secrets of the Unseen, one religious teacher may know as much about the subject as another.

Though the more educated classes of Japan are prone to be cynical if not atheistic in regard to the supernatural, they are inclined to hold that the motives supplied by religion are useful for cultivating and maintaining reverence for national tradition and respect for authority in the ignorant, the fanatical, and the superstitious. Of this theory the late Mr. Fukuzawa, the Sage of Mita, and founder of the Keiogijuku University, was the most notable exponent. He contended that while religion was no use to him personally, nor could he see how it could be to any fully developed mind, he was ready to believe that in the future it might prove, as it had in the past, a very valuable aid to morals and government among the more ignorant masses of the population. Be the mind of the educated classes what it may in regard to religion, there is no doubt that large numbers of them uphold it, while the vast mass of the Japanese people zealously support some creed or cult, which could hardly be the case without some degree of faith in religion.

The astonishing thing, of course, is not that the Japanese have so many religions,

for that is true of other countries, but that they should believe more or less in all, or nearly all, that claim their allegiance, with the exception of, perhaps, Christianity. There are numerous cases where Christians hold to the old faiths to some extent, while at the same time being out-and-out followers of Christ. Shinto is popular as a means of promoting patriotism, as a counterblast to Buddhist pessimism, and as affording a becoming ritual for marriage ceremonies; Buddhism is popular for funerals and imposing ceremonies of state; Confucianism proves most useful in education and government, for inculcating practical politics and unreasoning subservience to bureaucracy; Christianity is welcomed for its international influence and its eleemosynary institutions. Taking the Japanese as a whole, it is safe to say that the one aspect of religion that claims universal allegiance is its patriotism. Religion implies belief in the national gods, as taught by Shinto and Buddhism, or in the Almighty, as taught by the Christians; so that the divine being or beings are the ancestors of the Japanese, the Emperor being the descendant direct and representative immediate of the gods, and to be revered and obeyed as such. True religion is devotion to Emperor



GILT BRONZE EMBOSSED BUDDHIST FIGURES OF THE IMPERIAL COURT (EIGHTH CENTURY).
EXHIBITED IN THE TOKYO IMPERIAL MUSEUM

and country. As Shinto best sets forth the national ideal, all Japanese are more or less Shintoists, including those whose main interests are with Buddhism or Confucianism or Christianity. To most of the educated classes, no doubt, Shinto is a refined form of patriotism, and probably the so-called worship of ancestors does not mean much more than the veneration Occidentals accord the memory of the great dead; but there is not the slightest doubt that to the vast majority of the Japanese Shinto is a religion, and to many of them the only one. Nevertheless the Government avers that Shinto is not a religion, and thus evades the inconsistency of officially supporting the national shrines.

HISTORICAL OUTLINES

WHAT the religion of the Yamato race was when it first settled in the islands of Nippon can only be surmised from archaeological remains and from what is found in practice at the beginning of the sixth century A. D.,

when authentic history begins. It is quite clear that the Yamato had a definite religion then, and it was characterised by three main elements: Nature worship, which may have been imbibed from the native inhabitants; ancestor worship, involving deification of progenitors, which the conquering race had brought with them from their own home; and Confucianism, which had early found its way to the country, probably with some of the original immigrants. With the advent of Buddhism, in 535 A. D., we find the three elements combining to resist the invader; and so the early days of Buddhist propaganda were marred by civil strife.

Japan's theogony as well as her ideas of cosmology will be found more fully treated in the chapter on the origin and history of the Japanese people at the beginning of this volume. Suffice it here to say that believing, as the Yamato did, in their heaven-descended sovereign and themselves as the children of the gods, destined to deification after this life, they could not very well accept the pessimistic affirmations of the Indian religion. The literary monuments of the struggle for preservation of the national ideals in religion are to be found in the two oldest records of the nation, known as the *Kojiki* and the *Nihongi*, which belong in spirit, at least, to this period, and occupy in Japanese tradition much the same position as the Old Testament does in the Hebrew. These mythical compositions pointed the Yamato people to an origin and sovereignty more ancient than China, summing up the legends on which such claims were based and showing "the Way of the Gods." With the growth of Chinese influence and the constant introduction of new cults, it was no doubt found necessary to

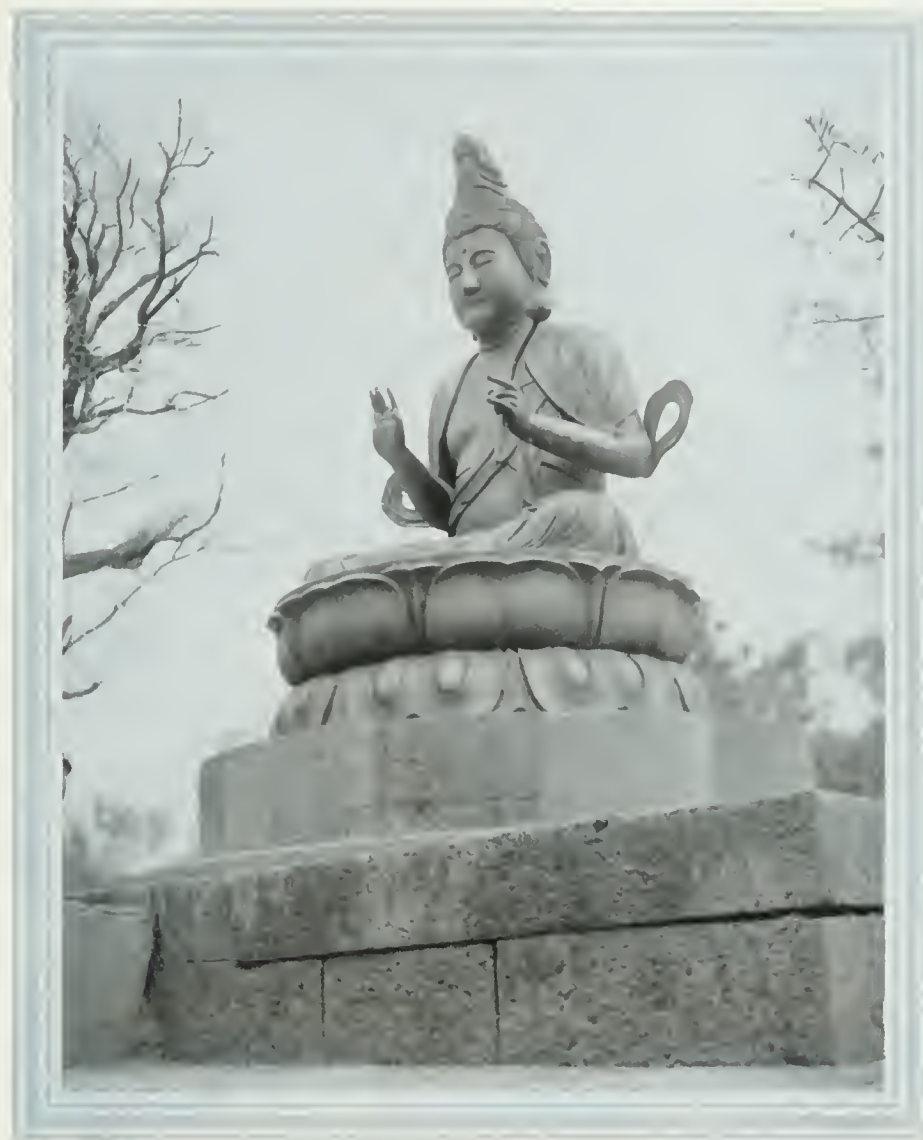


ONE OF THE ANCIENT GODS, BIZEN IMBE

offer this protest and assert the priority and preëminence of the national faith.

Buddhism, however, waged an incessant battle. The influence of Korea and China, with their ancient tradition and literary lore, permeated Yamato civilisation, and when the rulers of Japan, as well as her leading statesmen, finally espoused the foreign religion, the result was naturally a compromise. The tenacity of the national faith, however, is seen in the fact that the yielding was on the side of the alien religion. Indeed, Buddhism had always won its way to new lands and peoples by this same method of compromise. Buddhism, though essentially atheistic, even on its native soil never rejected the gods of Brahmanism, and it was prepared to accept the indigenous deities of Yamato on the same terms. During its long journeyings across the plains of Asia the Indian religion had learned to believe that Buddhas and Bodhisattvas could be incarnated many times for the benefit of suffering humanity, and why should not the same principle be extended to the Japanese pantheon? This was especially necessary in regard to the deified rulers of the Yamato race! And so the gods of Shinto were accepted as reincarnations of the great Buddhas, and the two religions were treated practically as identical. Thus the outward form of Buddhism was superimposed on the national cult of Shinto mainly through the influence of Chinese civilisation and the Imperial Court, which had adopted it, though the Yamato race had never really changed at heart.

The period best representing the age of compromise was when the capital was at Nara in the eighth century. During this time and for centuries afterward, the foreign religion continued to gain influence and to hold sway over the Japanese race. Great temples arose, numerous monasteries were established, princes and potentates championed the faith of Buddha, until at last the entire State was under the domination of priests and monks. And as is usually the case with a secularisation of religion, it became corrupt and devoted to intrigue and political aspirations. The Emperor Kwammu, at the beginning of the ninth century, removed the capital from Nara to Kyoto to elude the tentacles of the monks and enable the national ideal to assert itself. The Buddhism of Kyoto was much more consonant with Japanese character and tradition than that of Nara. During the three centuries that had elapsed since the advent of Buddhism, the peculiar insistency of the native character had successfully regained the ascendancy in national affairs, having absorbed and digested Confucianism, Taoism, Indian and Chinese Buddhism, and numerous elements of less immediate impor-



BRONZE BUDDHA IN ASAKUSA PARK, TOKYO

tance, the result being a masterpiece of theological construction, known as the *Tendai*.

Amid the incessant civil strife of the eleventh, twelfth, and thirteenth centuries religion fell sadly into decay. Perhaps it is safe to assume that because it had already lost, or refused to lose, its soul, the nation descended to these long periods of civil war. Religion now took refuge from the sword in temples and monasteries, and here and there in the hearts of the common people. From this time religion came to be marked by these three distinct types: that of the monk, the warrior, and the peasant. The type still persists and must be borne in mind by all who would not misunderstand Japanese religion. Nowhere in the world is it more evident than in Japan that religion is not racial but human. In the Japanese, as in all mortals, there is a mystic strain, which in some individuals finds its highest experience in monastic life. Even

in the busy Japan of to-day the monk persists and thrives. In the dark days of civil war much of the best intellect and spirit of the nation found its way to the cloister. There it preserved the religion that would have perished in blood, and the literature that would have been obliterated in burning cities, supplying the nation with the only moral and intellectual stimulus of the time. The monasteries and temples of Japan were as truly lights in the darkness of the Middle Ages as were those of the Christians in contemporary Europe. In the great monasteries at Hiyozan, Koyasan, and Nara, art, religion, and literature were preserved from annihilation. Nearly all the great teachers, painters, poets, and authors of this period were monks and priests.

Over against the monks and their aversion to blood and strife stood the warrior class, represented by the great military government which raised itself to power at Kamakura.

For centuries it was seen that a faith which opposed the taking of life, even animal life, was not well suited to the sturdy and strenuous Yamato, so recently removed from that primitive stage where victims were sacrificed to appease angry deities. The early Japanese sovereigns always had victims buried alive with their masters, so that the departed might not have to venture unattended into the Shinto unseen. Under the influence of the new religion this practice was discontinued. But the wars of the Minamoto and the Taira, of Yoritomo, Hojo, and Hideyoshi, showed that the Japanese were not at heart Buddhist, just as the great war in Europe showed that the Germans were not at heart Christian. The whole period of civil war was a protest against the religion of the monks. They were accused of political intrigues for opposing the warriors, of which, indeed, some were undoubtedly guilty, and actual war had to be waged against some of the monasteries at Kyoto. As the years of strife proceeded there arose a class known as the *bushi*, or knights, as in England. They were what

subsequently came to be known as *samurai*, the proud descendants of the ancient warriors who had conquered Nippon. They held a position not unlike that usurped by the Anglo-Norman aristocracy in mediæval England. The samurai were not exactly an irreligious people, but they wanted a religion appropriate to their nature, and a faith that forbade the taking of life was not one for men whose soul was the sword. They were the descendants of the men who had resisted the introduction of Buddhism and with whom the foreign religion had to reach a compromise before it could secure freedom in the islands. They still form the most powerful influence in Japanese society, and any religion that desires favour in Japan has to reckon with them. Buddhism in the thirteenth century began to realise that it must be prepared for further compromise. The first compromise had been in regard to gods; the second had to be concerned with certain doctrines averse to war. At Kamakura, the military capital, accordingly, was found emerging a form of Buddhism which appealed to the military

instincts of the samurai. It is known as Zen Buddhism, and makes little of forms, ceremonies, and doctrines, aiming chiefly at strict intellectual and moral discipline. It is an attempt to deal with *bushido* in a religious way. *Bushido* is really the conquering spirit of the warriors who subdued Japan under Jimmu Tenno; and Buddhism had tried to tame it and make it religious, with only indifferent results, but yet quite as successful as the Church has been with Teutonic *kultur*. At any rate, Zen Buddhism is the only sect of that faith that has any special appeal for the samurai.

And for the poor and the unlettered there was the teaching of the all-embracing mercy of Amida, the father of all sentient beings, and through whom the worlds came into existence and of whom all Buddhas are manifestations. He came into human flesh to find a way to save men from their unhappy condition in this world, and all who have faith in him and invoke his name will be welcomed at last into the habitations of bliss where he waits to receive them. And then



FIGURE OF KONGWORIKISHI, IN COLOURED WOOD, FIVE FEET IN HEIGHT, ATTRIBUTED TO JOKEI, THIRTEENTH CENTURY, OWNED BY KOFUKU-JI, A TEMPLE AT NARA CITY—INTERIOR OF THE HÔDÔ HALL, UJI, YAMASHIRO, AND ITS PRINCIPAL WOODEN IMAGE OF BUDDHA AMITABHA, PROBABLY BY JOCHO, ELEVENTH CENTURY—FIGURE OF MEIKIRA-TAISHO, ONE OF THE TWELVE COMPANION BUDDHIST DEITIES KNOWN AS J'UNI-SHINJO. HALF-RELIEVO ON WOOD, EARLY FUJIWARA PERIOD (888-1068 A. D.)



THE FAMOUS HONGWANJI TEMPLE AT KYOTO

came Christianity, in the sixteenth century, with the Portuguese and Spanish missionaries. The aversion of the Buddhists, their cruel persecutions in coöperation with the government for the eradication of the Western religion, and all that interesting record of martyrdom must be reserved for its proper place.

It will now be in order to deal with each of the religions claiming the allegiance of the Japanese—what they are and what they have accomplished in modern times.

SHINTO

SHINTO, or the Way of the Gods, is the original faith of the Japanese. To justify their claim that there is no official religion in Japan, the Government holds that Shinto is not a religion, as it has no dogmas, no sacred books, and no moral code, but it will hardly be conceded that a cult which insists on recognition of deities and the worship of them is not a religion. Nowhere is this remarkable inconsistency more conspicuous than in the words of the Government itself, as may be seen from the following extract taken from a statement issued by the Bureau of Shrines connected with the Government: "Whatever ideas or beliefs the people may have, the Government does not look upon the shrines as being religious in nature. However desirable it may be for people gradually to return to the former ideas and interpretations regarding the shrines, at the present time the Government has no thought of doing anything to bring this about. The

should be free!" Obviously this must be interpreted as an attitude calculated to lead all other religions to revere the Shinto shrines and deities as a patriotic duty, on the score that they have official assurance that in doing so they are in no way disloyal to their own faith. As already stated, to the great mass of the Japanese people Shinto is undoubtedly a religion and the spirits of the dead are worshipped as gods. Shinto is primarily a system of ancestor worship, according to which the spirits of the dead become *kami*, or exalted beings of god-like rank, entitled to the homage and reverence of the living. Doubtless the cult originated with the fear of ghosts which characterises the beliefs of primitive races, and is now used as a form of filial piety, yet there is no doubt that a Japanese believes that his ancestors are living, know all about him, and perceive as well as endeavour to guide his every action, and that he should always be governed by their example and counsel. In every Japanese home there is an altar-shelf in which are enshrined the ancestral spirits, and offerings are made and worship performed before the shrine twice a day. The number of gods in the Shinto pantheon is legion, vaguely enumerated as "eight hundred myriads," a sort of bacteriological calculation.

There are, however, three prevailing types of gods that call for more than passing notice: the National Gods, the Communal Deities, and the Family Gods. The National gods comprise the spirits of departed



KASUGA TEMPLE AT NARA, NEAR KYOTO



ENTRANCE AND INTERIOR OF A NIKKO TEMPLE

emperors, the central shrine being at Isé, with a branch in the Imperial Palace in Tokyo. These are honoured at certain appointed periods and on great national occasions, the officiants being appointed for the purpose by the Imperial Household. All matters of national importance are referred to the notice of the Imperial Spirits at the national shrine, and thanks are offered to them for national mercies. Since the victories over China and Russia greater attention has been devoted to these shrines, and the highest authorities have freely proclaimed the invincibility of the nation to be due to the assistance of the ancestral spirits, whom to ignore or offend is to be condemned. It is, of course, rather difficult to arrive at any very definite idea of what the Japanese mean by a Creator. Shinto speaks of the *Ōgami*, or great God, of Isé, but what deity is singled out from the gods many and lords many of the national pantheon, it is impossible to determine. The inevitable inference, however, is that the Almighty is a Japanese, the Emperor of Japan is His descendant, and that the Imperial House of

Japan is therefore superior to all the petty rulers of other countries, if not destined to rule them.

The Communal Gods are the spirits of great personages, such as princes or daimyo or other potentates, who have been benefactors to the province or community. The shrines in their honour are to be seen in every community down to the tiniest hamlet, while cities have many such shrines, and on appointed occasions and anniversaries offerings are made at festivals celebrated before these shrines for the consolation of the departed spirit and the winning of its favour to bless and prosper the community. Some of these shrines date their foundation in remote antiquity, and the older they are the greater becomes their claim to reverence and gifts. These gods must, of course, be always Japanese, and when the nation began to acquire colonies, these could have no shrines because these countries had no gods, all deities being Japanese. However, a Japanese prince happened to die in Formosa while on a visit and the occasion was seized to raise a shrine to his memory, and thus

that colony is now fortunately provided with a guardian deity, relieving the communal deities in Japan proper from the care of the outlying portions of the Empire. In Korea no Japanese shrine of any importance has yet been erected as no great spirit connected with that country and of Japanese blood has passed into the unseen as yet; but no doubt in due time occasion will be afforded for the founding of such a shrine.

As to family shrines, these, as has already been indicated, are in the form of small altars in the household, the Shinto shrines being very simple, but the Buddhist more elaborate with the name of the departed inscribed on a tablet, or *ihai*, before which the family perform their daily devotions, seeking the help of the departed. How far back ancestor worship should go has not been decided, though to the evolutionists in Japan it must form an interesting question. The average Japanese, however, is not troubled by such problems, as he, like the average Christian of the West, believes he has descended in direct succession from the gods, without a thought of any missing

link between. To the more educated classes, on the other hand, it must appear that the less remote one's ancestors are the more worthy of worship and emulation in character do they become. In addition to the ancestral gods, the Japanese have innumerable other deities whose duty is to oversee every action and aspect of human life, from the performance of a great State ceremony to the performance of the toilet, the building of a house or the marrying of a wife. There are gods of wind, of fire, of pestilence, of war, of food, of the pot in which the food is cooked, gods of the kitchen, the door, and the gate.

In spite of its avowed independence of moral codes and dogmatics in general, Shinto has a complicated ritual which requires a special education to understand and perform, and it has numerous ceremonies of purification from wrongdoing and bodily defilement. It is a religion, however, which has no heaven or hell, and no morals except manners and national customs, in which it shows Confucian influence. Shinto holds that the Japanese, being children of the gods, are naturally and innately moral, and so require no moral code or teaching as do the barbarian nations of the West. All a Shintoist has to do is to follow the devices and desires of his own heart and obey the Mikado and he has fulfilled his whole duty to man. The Imperial Rescript on Education, quoted in the article on that subject in this volume, may be taken to represent the Shinto summary of ethics, and on this the ethical education of each rising generation is based. That the theory is not only defective but quite ineffective, either as a motive or a mode for the shaping of moral life, is clear from the appalling degree of immorality characteristic of Japanese civilisation, where not only has the Golden Rule small place, but the general idea is: Do unto others as they would do unto you, only do it first.

The Shinto temple, in contrast to the gorgeous altars of Buddhism, is very simple, constructed, as it is, of plain, undecorated wood, without any altar save a shelf on which stand a mirror, and some bunches of paper symbolizing prayers and offerings. The aim of the architecture seems to be to preserve the form of the primeval hut in which lived the ancestors to be worshipped. The Shinto priest when engaged before the altar wears a loose gown of black over white, fastened at the waist with a girdle, and he has a black cap of curious form on his head. At Shinto festivals there are intoning of prayers, the reciting of incantations, and the performing of dances for the pleasure and entertainment of the gods. Some of the plays and operettas go back in origin to the

birth of music and poetry. Shinto is possibly the most optimistic religion in the world. Its gods are very human and enjoy what man enjoys; and consequently one is not surprised to find Shintoists now and then even joking with the gods. It may be that it was felt impossible to survey some of the countenances the gods had produced in Japan and believe the Creator was lacking in a sense of humour. And sometimes the gods are even punished, as there are cases on record where, prayers for rain being ignored, the image of the deity petitioned was taken down from its pedestal and hurled into a pond. Even the gods have to play up to Japanese ideas or suffer the consequences. The Japanese mother takes her new-born babe to the Shinto shrine to invoke the protection of the guardian deity for its

success in life, for there also she was probably married. In death, however, recourse is had to Buddhism, which claims to be more familiar with the dark secrets of the unseen than Shinto, and therefore to offer better facilities of ceremonial for the dead. At the famous war museum at Kudan in Tokyo there is a great shrine known as the *Yasukuni Jinja*, dedicated to the spirits of all those that have died on the field of battle for Japan, including even the names of some Englishmen. There twice every year representatives of the Emperor, the Government, and the army and navy, as well as of the people at large, hold a solemn festival in honour of the fallen heroes, when their spirits are invoked for the prosperity of the country for which they have given their lives.



BRONZE BUDDHA AT SHINAGAWA, TOKYO



INTERIOR OF A BUDDHIST SHRINE

As to official status, Shinto shrines are divided into twelve grades, with the Grand Shrine of Isé at the head and the Grand Shrine of Izumo second, the Kashima Shrine at Hitachi third, and so on. Every portion of the Empire is under the guardianship of Shinto deities. The total number of Shinto shrines in Japan is 122,593, with 14,223 priests, the latter being as a rule of little education, though there is a college in Tokyo for the training of priests. As this training consists of mere memorising and practising the national ritual for State occasions, the course is only for a few months and the education in no way profound. In Japan the Emperor is the chief priest of the nation, and he may officiate at the Shinto altar or appoint a deputy, while at the inferior shrines a duly appointed Shinto priest attends to such duties, the office being generally hereditary. To make confusion

worse confounded, from a theological point of view, there are numerous sects of Shinto, and subjects galore, of which thirteen are of more than ordinary importance, and are accorded official recognition. The leading sect simply calls itself the Shinto Sect, and announces that its main claim to distinction lies in the facilities it offers for the worship of the ancestors of "the whole divine race" of the age of myth. The Jingukyo Sect enshrines the Sun Goddess as its principal deity, and makes a special feature of marriage services and correctness of national ritual. The Taishakyo Sect looks to the Grand Shrine of Izumo as its head, is dedicated to six deities of the mythic ages, and specialises in luck for lovers and their weddings. The Fuso Sect was founded by Fujiwara Sumiyuiki in the sixteenth century after a prolonged meditation on Mount Fuji, where he obtained a divine revelation. Conse-

quently it is much associated with the sacred mountain, and worships the three principal deities of creation, in other words, the ancestors of the Japanese race. The Daiseikyo Sect worships the "myriad deities" of heaven and earth, including the imperial ancestors, and upholds the divine precepts that maintain national polity. Another sect, called the Jikko, teaches that Fujisan is the heart of the whole earth, offers worship in connection with that mountain, and prays unceasingly for the prosperity of the Imperial House. The Kurozumi Sect was founded in 1849 by a man of the same name, with a view to upholding more fervently the divine precepts of the Imperial Ancestors and making the Sun Goddess the central object of worship, the sun being the primal source of life and light. This sect makes much of sun baths and sun meditations, with deep respiration, and is very popular. The Shuseiha Sect aims at a closer harmony between Shinto and Buddhism, while worshipping the national ancestors; and the Jisshukyo Sect aims at undoing the evils of Buddhism and Christianity in national life, the effects of which it professes to remove by exorcism and divination. The main features of the Mitakekyo Sect are cleanliness of body and mind as the means of winning godly favour, and it propitiates the national deities by promoting mountain climbing. Loyalty to the Imperial Throne is the outstanding feature of the Miharaikyo Sect of Shinto, with a corresponding aversion to all foreign religions. It lays great stress on bodily purification. The founder of the Shinrikyo Sect is still living. His



BRONZE BELL, DATED 1577, A RELIC OF AN EARLY JESUIT MISSION. NOW PRESERVED IN A BUDDHIST TEMPLE AT KYOTO

name is Sano Tsuenhiko, and his main principle of faith is unceasing prayer and the practice of divination. The Tenrikyo Sect was founded by a farmer's wife named Miki Nakayama, in 1887. At first imprisoned for imposing on the public, the founder of the new sect at last won her way to official recognition. Ten gods are worshipped and self-sacrifice and benevolence are the chief features of practice. A holding of property and wealth in common is advocated and a life of poverty commended. This new sect is very popular, having in the short space of its existence already 3,000 shrines and more than 4,000,000 adherents. It will thus be seen that if the Japanese are not sufficiently patriotic, it is not for want of sects to impress them with its importance and necessity; and if Japan is unfortunate in the future as a nation it will not be for lack of gods to look after her interests and devotees to remind them of their duties.

CONFUCIANISM

CONFUCIANISM can hardly be said to exist as a separate cult in Japan, though no doubt it is the only rule of life for a considerable number of individuals, especially among the upper classes. It is particularly adapted to that increasing number of Japanese who, through the influence of modern science, have broken away from and abandoned the myths and superstitions of national tradition and now only observe the ancient ceremonies out of respect for the past and loyalty to the present. Being more of a philosophy of life than a religion, Confucianism in Japan has no more to say about gods than it has in China. It simply avers that the chief end of man is to follow nature; that is, to be true to his own instincts. This cult is especially adapted to Japanese notions of nationality and citizenship, since it agrees with Shinto in teaching that the Japanese are the direct descendants of the gods, and, with such a parentage, are well fitted to assume the responsibility which freedom to follow nature offers. When Baron Shibusawa, one of the most distinguished disciples of Confucius in Japan, returned from a visit to the United States, he told his fellow countrymen how John Wanamaker, the great merchant prince of America, asked him one day before a public audience how it was that he, an intelligent man, could accept a religion or rule of life that China had followed for 3,000 years without making any progress. Baron Shibusawa's admission that he had no answer to this question is significant. In days when so much confusion prevails in regard to religion, and yet many men feel that life must have some anchor in the way of a creed, Confucianism



THE FAMOUS DAIBUTSU AT KAMAKURA

appeals to many Japanese as offering the least that religion can demand and retain its name. In its emphasis on the loyalty of subject to sovereign and children to parents and inferior to superior, this cult is very agreeable to the bureaucratic spirit of Japanese government and civilisation, and is always made the basis of national ethics. For the masses, however, Confucianism has little or no appeal, as it lacks the motives which faith in deity compels and sincere worship inspires and strengthens. A religion or cult that offers mortal man nothing better than himself to have faith in and emulate, can never command confidence save among those already pretty well fixed, to use a vulgar term. Without a faith that can be touched by some sincere emotion and ideal, Confucianism lies cold in the

brains of its exponents, and suffering humanity finds little or no place for it in the heart. In this respect Buddhism with its tender and merciful deities appeals to the Japanese people much more, and consequently there was never much harmony between the two until the Tokugawa days, when the shogun, in his grasp of power, was bent on making the subservience of inferior to superior a religion. A school of Confucianism was established, but failed to accomplish much. Such scholars as Hirata and Motoōri began to expound the ancient doctrines, tending to show that Japan was the country of the gods, the divine ancestors whom the conquerors worshipped long before Confucianism and Buddhism ever came to the sacred land of Yamato. As these ancient gods had created Japan and gave it to their descend-



MIYAJIMA TEMPLE

ants, it was the duty of all loyal Japanese to worship these gods and the Emperor who represented them on earth. Patriotism, loyalty, and religion were one and the same thing to these new teachers of the old faith. It did not take very long for such teaching to overthrow the shogunate, which had usurped the imperial prerogatives and set up a centre of government of its own. That was the beginning of a new movement

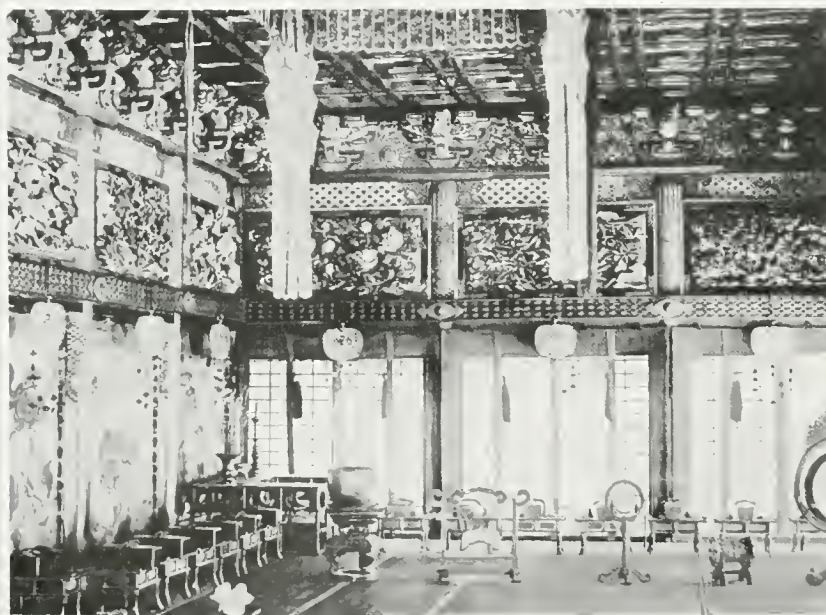
that received fresh impetus with the downfall of feudalism and the Restoration of Imperial Rule, so that for the last fifty years or more Shinto has been leaving both Buddhism and Christianity and all other religions in the shade.

BUDDHISM

In the brief space at our disposal it would be absurd to attempt an exposition of Bud-

dhism as taught in Japan, where it is not at all the same religion that it is in India and other countries of its adoption. The Buddhism of India offers salvation through self-perfection—grace comes through knowledge and enlightenment. Japanese Buddhism, on the other hand, leans far toward the Christian doctrine of faith in a saviour as the way to life, and perhaps largely under Christian influence. In Japan Buddhism has, nevertheless, been unable to divest itself of its inherent pessimism, nor to escape from pantheism, notwithstanding its atheistical trend. Japanese Buddhism, however, teaches that Amida is the creator and father of men and that salvation depends on man's faith in Buddha, the incarnation of Amida. Beneath this outward show of theism Buddhism yet remains essentially pantheistic. The Divine Being is regarded as identical with the universe, one with the Mind of the Universe, absorbed in the five elements that go to the composition of matter. In philosophic treatises, in hymns, and in general liturgies, this teaching is certainly implied.

Those familiar with the details of early Christian history will see in Buddhism much of the pantheism which Irenæus describes in the God of Basilides. Between Mahayana Buddhism and ancient Gnosticism there is a striking resemblance, showing that the long exploded and forgotten theories and heresies of ancient Egypt and Syria still survive in Japan. Traces of similarity are also found between the Buddhism of Japan and the religion of ancient Egypt, both having the same central deity, with his retinue of subsidiary deities and a host of minor beings, the whole making up the sum total of the divine. There are, moreover, the same incantations, charms, and manual gesticulations. Interesting references were made to this by Professor Sayce during his visit to Japan, after concluding his great explorations and excavations in Egypt. So from Egypt, through India and China, this religion came to Japan, and the Daibutsu at Nara may be taken as identical with Osiris. Nor may the idea be wholly farfetched to suppose that there is possibly some Egyptian blood in the Japanese race. In its appeal to the masses in Japan, however, Buddhism lays great stress on the mercy and all-abounding love of Amida. This idea was first put forth by Zendo of the seventh century in China, and early found its way to Japan, stirring powerfully the hearts of such men as Genshin, Honen, Shinran and others, but the celebrated reformer, Nichiren, rejected it and its Amida as a new thing in Buddhism and proclaimed Shakyamuni as supreme, seeking to call men back to the original beliefs of the faith. Thus arose in Japan sect after sect,



INTERIOR OF A BUDDHIST TEMPLE, SHOWING THE CEREMONIAL FURNITURE

each warring with the other, the new sects often becoming political intriguers, with their trainbands of warriors, while pious souls in secluded temples kept alight the lamp of religion.

When Christianity came to Japan in the sixteenth century, Buddhism waged relentless war against it, while to the Jesuits there was no love lost. Those who had for centuries been teaching the sin of taking animal life, and of eating animal food, now saw no iniquity in delivering up innocent men and women and even babes to deaths of the most cruel and revolting kind. From this reversion to barbarism Japanese Buddhism has never recovered, the effect being not unlike that of the Inquisition in Spain. With the downfall of the shogunate and the Restoration of Imperial Rule, Buddhism was disestablished and left to its own resources. Since then it has greatly bestirred itself, under the rivalry of Christianity, and constrained by the whip of adversity. Its chief success, so far as it may truthfully be said to have had any, has been in impressing the people with the mercy and all-embracing care of Amida, which are described in terms remarkably like those of the Christian preacher. The Zen sect has, perhaps, been the most popular, especially in educated and military circles, as it appeals to the fighting qualities in man, but the masses support one or the other of the remaining innumerable sects into which the religion is divided. Buddhism in Japan can not be said to show much indication of progress, though it no doubt still has a great hold on the masses of the people. Too often one sees temples neglected and falling into decay to believe that the faith is universally very much alive. But the popular temples seem well supported, the annual collections dropped into the treasure boxes at the doors amounting to enormous sums. In recent years attempts have been made to establish Buddhist missions, but with indifferent results. Even in the Japanese colonies, if we are to go by accusations in the vernacular press, Buddhism takes little or no practical interest, as compared with that shown by the Christians. Temples have been erected in America and England, but no one will claim that Buddhist propaganda in these countries has had any appreciable effect. The Buddhist priesthood in Japan is still too generally illiterate and lax, and even immoral, according to the daily papers, to exercise a commanding religious influence on the nation, while even among the leading temples, such as those at Kyoto, very questionable financial transactions are reported, causing grave scandal. During the war with Russia Buddhism made special efforts to assist the troops in a practical way at the

front, which attracted very favourable recognition and caused some revival of interest in the religion. There is yet little or no coöperation between Buddhism and Christianity in Japan, but relations between them are much less acrimonious than in the old days.

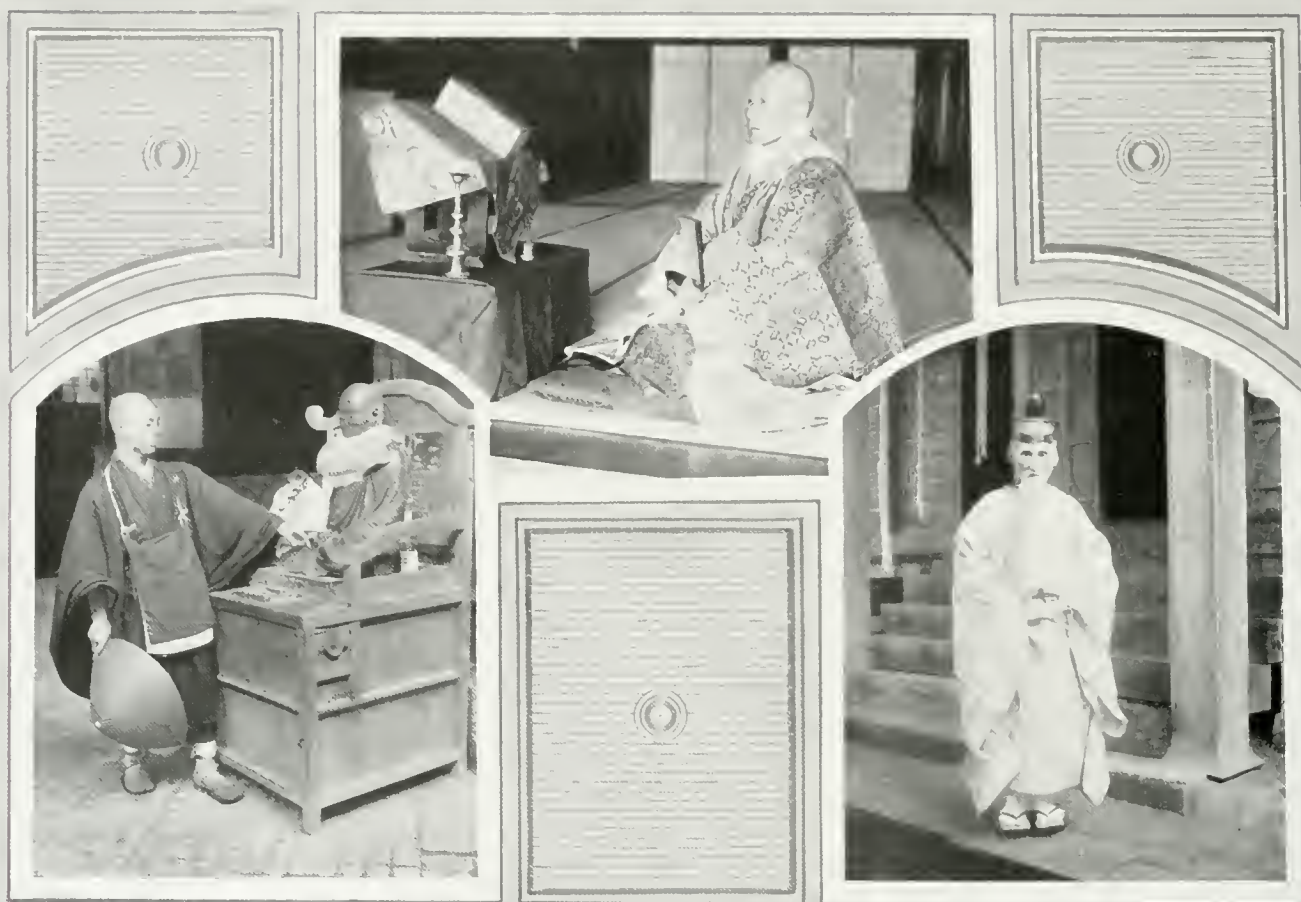
At present the number of Buddhist sects entitled to official recognition by the Government in Japan is twelve, which again are subdivided into numerous other sects, the Shin, Zen, and the Shingon sects claiming each ten minor sects, and others more or less subdivisions. The Hosso Sect, which is the oldest, dating from 653 A. D., has its headquarters at the Kofukuji temple at Nara, being the family temple of the great Fujiwara clan, whence the empresses of Japan are always taken. Another ancient sect is the Kegon, dating from 735 A. D., with its head temple in Nara, famous for the colossal image of Buddha. The Tendai Sect was introduced from China by Saicho in 805 A. D., and was the first to base all religious doctrines on the scriptures and the attainment of salvation by practising the cardinal virtues and religious observances. The Enryakuji temple on Mount Hiei is the head of this sect. The Shingon Sect was founded by Kukai in the year 806, the founder being the inventor of the Japanese syllabary. This sect has its central temple in Kyoto, the famous Gokokuji, and one of the chief features is the emphasis it lays on mystic rites and prayers. The Yuzu Nembutsu Sect dates from the twelfth century, and makes a specialty of chanting invocations and incantations. The Jodo Sect also dates from the twelfth century, having been founded by the great priest Honen, who tried to make religion popular by expounding a difference between the doctrines necessary for the initiated and those for the masses. The head temple is the Chion-in in Kyoto. The Zen Sect came to Japan from China in the thirteenth century, making salvation depend on meditation and introspection, the essential virtue cultivated being self-control. There are numerous subjects, but it would take the acumen of a schoolman to detect the differences between them. One of the most prosperous of Buddhist sects is the Shin, founded by Shinran, who based his doctrines on the three great sutras. This sect does not prohibit the eating of meat or the marriage of the priesthood. Salvation is attained by faith in Amida and by praising his holy name. The chief prayer is *Namu Amida Butsu*, which means, "I trust in the mercy of Buddha." The chief temple is the Hongwanji at Kyoto. The Hokke Sect was founded by Nichiren in the thirteenth century. Its distinctive feature is the doctrine that salvation is to be attained by chanting a certain invocation to

the accompaniment of noisy drum-beating. The head temple is the Kyuenji, on Mount Minobu, in Kai. The Ji Sect is another offshoot of the thirteenth century, and represents a compromise between the Holy Path school and the Pure Land school of some of the older sects. The Shinshoji Sect was formed from a schism in the Shingon Sect, caused by a difference of opinion over the Masakado rebellion in 940 A. D. For this reason it is resorted to by all in trouble through war or other calamity. The sects of Buddhism in Japan possessing over a thousand temples are the Tendai with 4,572; the Shingon, 12,357; the Jodo, 8,356; the Rinzaï, 6,091; the Sodo, 14,225; the Shinshu, 19,638; the Nichiren, 5,028, the total number of temples being 71,730, with 53,558 priests.

CHRISTIANITY

THE opposition which Buddhism met with as an alien religion on its advent to Japan was nothing to that which Christianity ultimately had to face when it was discovered that the Western religion was less ready to compromise for its existence. The missionaries of the Nazarene were firm in their teaching and unyielding in their moral restrictions, two features that did not well fall in with a people taught that the way of nature was the way of the gods. At first, of course, Christianity was welcomed with open arms, and no more strange and violent contrast can be found than that between the cordiality of its inception and the violent hatred of its rejection a hundred years later. It was at first received because it brought the foreigner with his knowledge of Western science and the arts of war; it was rejected because the Spanish and Portuguese came to be suspected as political emissaries bent on the final subjugation of Japan, while the religion of the missionaries was inconvenient to the sensual and harem-loving authorities who controlled the national policy. The progress of the Christian religion in Japan during the first years of its propaganda was nothing short of marvellous. Converts were drawn from all classes alike. Noblemen, Buddhist priests, men of learning and probity, even great daimyo, embraced the new faith with the same conscientious zeal as did the poor and the lowly. In some thirty years from the date of its advent in 1549, the Christian Church in Japan had no less than 600,000 converts, with 130 European missionaries and numerous native priests and teachers.

One of the first as well as the greatest of these early missionaries was the noble and saintly Francis Xavier. He had been engaged in the evangelisation of India and the Sunda Islands when he met a Japanese



THE GOD OF SICKNESS—A BUDDHIST PRIEST AND A SHINTO PRIEST, BOTH IN FULL CEREMONIAL ROBES

named Anjiro, a native of Kagoshima, who had gone to India in a Chinese junk. Anjiro was a man of some character and eagerly embraced the faith and was baptised. The account of Japan which he gave to Xavier induced the famous missionary to set out for the country. Arriving at Kagoshima in 1549, the stranger was received with distinguished courtesy by the Prince of Satsuma, and forthwith began to preach the Gospel unhindered. This man remained only two years and a half in Japan but in that time established missions at various places, notably at Hirado, Yamaguchi, and Kyoto. Xavier left behind him two Jesuits who had accompanied him, named Cosmo de Torres and one Fernandez. Other missionaries soon came in the various ships of Spain and Portugal that began to trade with Japan. In forty years the faith had so well established itself that the Church was able to send an embassy to Rome, supported by the daimyo of Bungo, Arima, and Omura. The embassy reached Rome in 1585, having been three years on the way, and was received warmly by the Pope. The letters

brought to His Holiness from the daimyo of Japan expressed gratification for the opportunity of knowing Christ, and besought the favour of the Holy Father on the infant Church of Japan. The party had sailed from Japan by way of Goa and thence around the Cape of Good Hope to Mexico, whence it proceeded to Spain and from Madrid across the continent to Rome. Returning by the same route the embassy came by way of Manila and did not reach Japan until 1590. Another embassy was despatched to Europe by the daimyo of Sendai in 1613, but while it was on the way persecution against the Christians had broken out in Japan, and the envoys did not meet with a very hearty reception, the lord of Sendai himself having proved a betrayer of the faithful.

Such then was the happy situation of the Church in Japan when fierce persecution arose. The earlier persecutions were in some degree due to the mistakes of the missionaries themselves. The Christian propaganda at first went on harmoniously, save for the opposition it met from Buddhism, until the arrival of the Franciscans from the Philip-

pines. These were in some measure jealous of the Jesuits, and their attitude was still more emphasised by the bitterness prevailing between the Spanish and Portuguese traders, who, in order to compass each other's ruin, began a campaign of mutual libel in the ears of the Japanese authorities. This acrimonious division of opinion among the foreigners gave rise to suspicions among the Japanese. The Portuguese said that Spain had subdued the Americas with great cruelty, as well as taken the Philippine Islands, and that the same policy would be pursued doubtless in Japan. When the Dutch traders began to come they confirmed this rumour and included the Portuguese in its sinister significance. These suspicions, combined with the constant quarrels between the Buddhists and the Christians, in which both sides showed too great a spirit of aggression, led to the enactment of laws restricting religious propaganda, and as the Franciscans defied these regulations, it looked to the authorities as if the foreigners were not going to wait for the help of European armies before taking matters into their own hands.

At the same time the war between Buddhism and Christianity grew more bitter and relentless, furthered by certain daimyo who had a grudge against the monks and were anxious to use the foreign religion as a means of taking revenge on the temples. To make matters worse, the Governor of Nagasaki, where Christianity was strongest, had borrowed a large sum of money from the foreigners for military purposes, and being unable to repay the money when it became due, he was obliged to concede the foreigners certain privileges in regard to trade and religion that in time seemed to threaten the independence of the authorities. To evade these responsibilities Nagasaki petitioned Hideyoshi, the war lord of Kyoto, to withdraw the privileges and suppress the foreigners. Hideyoshi had no love for Christianity, as the missionaries had interfered with his domestic policy of sending out agents to collect all the prettiest maidens of various districts for his harem, refusing to give up the Christian girls. So he was ready to sanction the Nagasaki proposal and suppress the Christians. From this time the trial of blood began, that was to sweep so unmercifully over the Christian Church in Japan. This was about the beginning of the seventeenth century, at which time it is said there were no less than a million Christians in the Empire, with churches in almost every important place. To undertake the eradication of the religion was, therefore, no easy task, yet the feudal authorities attempted no less. Although the



PICTURES OFFERED TO THE TEMPLE WHEN PRAYERS HAVE BEEN ANSWERED

early Christian persecutions began from causes which we have seen to be hardly conscientious, the campaign against the Church during the seventeenth century was no doubt inspired by fear of foreigners as well as hatred of the stubborn martyr-spirit of the faithful. At first there was some hesitation in enforcing the laws against the Christians, lest such a policy should result in the destruction of foreign trade which was then flourishing between Japan and Europe, for the authorities knew it would

be difficult to keep out the missionaries so long as foreign ships were allowed to come to Japan. But the arrival of the Dutch obviated this difficulty, as they were not only opposed to the Spanish and Portuguese but brought no missionaries in their ships, while at the same time the Tokugawa shoguns had not so much interest in trade as their predecessors. The Dutch proved their sincerity in supporting the authorities by sending a ship to bombard the Christians who had taken refuge in the castle at Shimabara during the Amakusa rebellion.

From the year 1611 onwards for half a century the persecutions enforced for the eradication of Christianity in Japan were so terrible as to be among the most barbarous in the annals of human cruelty. At first it was against the leaders, and more than 200 of the missionaries suffered martyrdom, Japanese and foreigners alike going bravely to the stake, the cross, or slow death by unmentionable mutilation. But the laity proved as staunch adherents of the faith as the priests and teachers, and they, too, were finally included in the holocaust of terror. Every man, woman, and child who refused to recant according to a prescribed formula was put to the torture and the death. The ways and means of increasing the terror were of the most fiendish invention and the most excruciating nature. Many were crucified by being fastened to X-shaped crosses and having spears thrust through their bodies obliquely from either side, piercing the vitals. Others were suspended by the feet in deep holes in the ground, until ready to recant or die, as they usually did in three or four days. In Sendai and that neighbour-



A BUDDHIST CEMETERY, SHOWING THE STICKS WHICH ARE SET UP WHENEVER SPECIAL PRAYERS ARE OFFERED BY THE PRIEST



SHINTO PRIEST OFFERING PRAYER ON FESTIVAL DAY

hood the method most popular was to strip the victims naked and throw them into icy ponds until they perished with cold. In Kyushu the Christians were taken to the boiling springs at Unzen and suspended head-first in the water seething with intense heat, being dipped up and down until recantation or death relieved the agony. Hundreds were simply burned at the stake, mothers bearing their little ones in their arms to the flames. Others were beheaded, drowned, flung over precipices, buried alive, torn asunder by oxen, tied up in rice sacks, piled in heaps and set fire to; some were put in cages with food suspended beyond their reach until they starved to death. No form of torture or inhumanity was too terrible if the people could only be turned from the foreign religion. Most of the Christians were faithful unto death, and this left an impression on the Empire that has never been forgotten. The cruelties of the persecution not only appeared to have no terror for the martyrs of Japan, but seemed to them to prove the truth of their creed and its superiority to the civilisation that so ruthlessly committed them to an inhuman death.

The methods adopted by the authorities for testing the Christians are interesting. The Buddhist temples were asked to make a census of each district and to keep a record of all who were suspected of being Christians. Every governor of every province was made responsible for the religious belief of all within his jurisdiction, and he in turn made the headman of every village similarly responsible. Every street in every city, town, and village was divided into families of five, one household being made responsible

for the religion of the other four, and having to report regularly to headquarters. Officials went from house to house requiring each member of the family to trample on the crucifix. The latter was known as the *fumi-ye*, a kind of figure in relief made of brass or copper cast by a brass founder in Nagasaki, the invention being distributed all over the country for testing the victims. Public meetings were summoned at temples where the *fumi-ye* were displayed to be trampled on, refusal to do which, or even to attend the meeting, was met by instant arrest and torture. Every daimyo in the Empire had to establish an official bureau for the extirpation of Christianity. At first a suspect might escape by purchasing a certificate from a local temple, the idea being that this might add to temple funds, but the Christians refused this compromise and the scheme was abandoned. Then a census was resorted to, this being the origin of census-taking in Japan. In its anxiety to ensure the extermination of the Christians, Buddhism became barbarous, cowardly, and materialistic, bringing in a spiritual decadence from which it has not since recovered. Prize money was offered by the Government to all informers against the Christians, notices to this effect being posted in all conspicuous places. Two hundred pieces of silver were paid for the apprehension of one *padre*, one hundred for a deacon, and fifty for a common Christian, the money to be paid even if those apprehended should renounce the faith. All books making reference to the hated religion were collected and burnt. Thus the persecution continued until it was supposed no Christians were left. Here and there, how-

ever, a remnant happened to escape detection. After the centuries of seclusion had passed away and the cruelties of the bloody persecutions had been forgotten and the missionaries were allowed to return, descendants of the early Christians were found still adhering to the faith of their fathers. In an around Nagasaki were discovered Christian families who had survived the ruins of the Church two centuries before. The history of Christianity in feudal Japan forms one of the noblest records of martyrdom in the history of the Church, and proves how bravely and firmly the Japanese people can face danger and even death itself for an ideal they can believe in. Given a great faith and a life worth dying for, the Japanese will prove the most devoted of people. As they have not yet had full freedom in this direction, the Japan of to-day is doubtless nothing to the Japan of the future.

After the opening of Japan to international intercourse the missionaries came back as a matter of course, the first ones, however, representing only the Protestant churches. There was a clergyman on board the flagship of Commodore Perry when he visited Japan in 1853, who showed some interest in the evangelisation of the Japanese. The first missionary to Japan following the abolition of the exclusion policy was Dr. Brown, who came to Kanagawa, followed by Dr. Hepburn,



"PILGRIMS"

with Dr. Wells Williams at Nagasaki, Bishop Williams at Osaka, Dr. Greene in Tokyo, and Dr. Davis at Kyoto. These leaders of the pioneer band proved remarkably worthy of the responsibility thus thrust upon them and soon won the confidence of the Japanese, preparing the way for the progress Christianity has since experienced in the country. These men were not only teachers of religion, but leaders of the whole nation at a time when little was known of Western ways. Men like Drs. Greene and Verbeek saved the Government from mistakes it might easily have made in its early relations with Western nations, and Dr. Verbeek especially had much to do with laying the foundations of Japanese education. As the first treaty of amity and commerce was with the United States, it was but natural that the first missionaries should be mostly from that country. The school of Dr. Brown and the dispensary of Dr. Hepburn at Yokohama had much to do with showing the Japanese the humanitarian side of the foreign religion. Captain James, an earnest Christian leader employed in a school at Kumamoto, and Professor Clarke of the Sapporo College were able leaders in the new Christian movement. Soon native Christians like Nijima, who founded the Doshisha University, began to rise, with a large following from among their fellow countrymen.

The first Roman Catholic missionaries came to Japan in 1844, landing in Luchu, but as there was yet no treaty with France, they were deported to Hongkong. In 1859, after the conclusion of the treaty with France, Roman Catholic missionaries came to Nagasaki, Kobé, Yokohama, and Luchu, and in 1872 the work was extended to Tokyo, the present head of the mission. The Russian Orthodox Church arrived in Japan in 1855, and under one man, the late Archbishop Nicholai, who lived for fifty years in Japan, made remarkable progress, the work being all done through native converts. From the beginning of its mission the Russian Church looked forward to making its work independent and it has well succeeded in this policy, save financially. In one sense the missions of the Russian Church and the Roman Church have been more successful in Japan than the Protestant missions, as they appeal more to the Japanese love of ceremonial and elaborate form, and closely resemble Buddhism outwardly, while satisfying the Japanese proclivity to superstition. On the other hand, the Japanese reveal an almost opposite preference for elegant simplicity, as may be seen in Shinto, and to this side of their nature Protestantism most appeals. The existence of numerous sects, of all degrees of enlightenment and none, among the Shintoists and Buddhists shows



BOYS CELEBRATING A SHINTO FESTIVAL DAY

the Japanese weakness for religious divisions and affords ample soil for the sects and cults of Christendom to take root and flourish. In addition to all the denominations of European and American Christendom, Japan has the Young Men's Christian Association, which is very popular on account of its unsectarian principles as well as its assistance to young men, and the Salvation Army, which is also popular, chiefly on account of the military aspect and its charity and rescue work. It is not too much to say that

closer union and more efficient coöperation between the various Christian sects and churches in Japan would doubtless ensure greater progress for the Church as a whole. Some of the denominational subdivisions have already united under this conviction, but the medley of creeds and forms still appealing to the Japanese is very confusing, as well as calculated to create hesitation and doubt.

The ordinary Japanese does not find Christianity more irrational or less desirable than the religions of his country, his only



SACRED PIGEONS IN ASAKUSA PARK, TOKYO

objection, as a rule, being that it is a foreign religion, forgetting that the same argument was originally used against Buddhism. One can appreciate his attitude by trying to imagine what would be the attitude of the average Englishman toward a Buddhist priest who should open a preaching place in an English town and begin to persuade the Englishman concerning the superiority of the Oriental religion. With the more educated Japanese the difficulty is greater; for he has already abandoned Shinto and Buddhism save for ceremonial or patriotic reasons, and he is not ready to accord a hearing to any creed that seems to savor of the superstitions and traditions from which he has cut himself free. Among the Christian propositions that most baffle him are the doctrine of the Trinity, the Incarnation, and the Atonement. The man Christ Jesus he has no objection to, except that he is a foreigner, and claims an allegiance above that accorded the Emperor. To those Japanese who accept the creeds of Shinto and Buddhism, as the majority of Japan's millions do, Christianity can not appear more irrational than what they already believe. Indeed, it seems to many much more rational, as well as better calculated to inspire man to nobler ideals and save his soul from hell. To all Japanese alike, however, there is some difficulty in reconciling the claims of Christ with those of the Imperial House. The Japanese Christians seem, however, to find no difficulty here, as they see no conflict between the loyalty to Christ and loyalty to their ruler. But those who are not Christians profess to find serious objections to Christianity on the score of loyalty, even so erudite a citizen as Dr. Tetsujiro Inouye, of the Tokyo Imperial University, holding that Christianity is incompatible with Japanese loyalty to the Imperial Throne, since it places Christ above all rulers on earth. He becomes absurd, however, when he bases his objections on the fact that Christianity can not, like Shinto, be nationalised so as to make the Christian God a Japanese. It is abundantly evident, therefore, that the more Christianity finds itself able to concede compromise and lend itself to Japanisation, as Buddhism did, the more prospect it will have of claiming universal acceptance in Japan. Already some missions appear to have reached a state of mind where the propagation of Christianity is handed over wholly to the Japanese, but the Church as a whole is firmly set against such compromise. The Congregationalists have placed their work practically in the hands of native workers, to whom the foreign missionaries are assistants and advisers. The Methodists have gone so far as to make bishops of native

Christians, thus providing seed for schism should a difference of opinion arise between native and foreign workers; but the Anglican and the American Episcopalians still hesitate to raise natives to the highest office in the Church, chiefly through fear of the passion for Japanising Christianity. Of course, it has to be admitted that since Christianity has taken on so many accretions to faith and practice on its journey westward, until much that is taught to-day as essential, was originally no part of the faith delivered to the saints, it is not unreasonable to assume that a people with so aggressive a racial spirit as the Japanese may be expected to add their quota in adapting the new religion to their notions of life and citizenship. But those who have proved such martyrs as the Japanese have done, might surely be trusted to guard the faith for which they were so ready to die. The progress of modern science is undermining Japan's notions of cosmogony and tradition and inclining the masses to democratic and liberal institutions, and as Christianity is undoubtedly the religion most consistent with such progress, as well as its best aid, the mind of Japan will eventually turn more seriously toward the religion of Christ. The Christianity of Japan will, however, be of a more modern



METAL PLAQUE IN THE IMPERIAL MUSEUM, TOKYO. A RELIC OF THE FIRST CHRISTIAN MISSION IN JAPAN, IN THE SEVENTEENTH CENTURY

type than that prevailing in the West and preached by the foreign missionaries; it will be modern in the best sense of the term.

The following table represents the latest statistics for the Christian Church in Japan:

| MISSIONS | BUILDINGS | BELIEVERS | SUNDAY SCHOOL CHILDREN | MISSIONARIES | |
|--------------------------------------|--------------|----------------|------------------------|--------------|--------------|
| | | | | FOREIGN | NATIVE |
| Congregationalist | 133 | 19,521 | 10,848 | 78 | 278 |
| Baptist | 43 | 4,479 | 15,917 | 74 | 265 |
| Christian Convention | 14 | 1,143 | 2,550 | 9 | 26 |
| Church of Christ | 32 | 756 | 3,000 | 29 | 124 |
| Lutheran | 13 | 626 | 3,620 | 41 | 34 |
| Evangelical Association | 18 | 1,315 | 3,343 | 15 | 40 |
| Japan Methodist | 117 | 14,089 | 34,848 | 194 | 290 |
| Protestant Methodist | 17 | 1,331 | 3,733 | 13 | 114 |
| United Brethren | 19 | 1,301 | 1,510 | 8 | 25 |
| Japan Christian Church | 224 | 29,519 | 30,142 | 189 | 563 |
| Episcopal Church | 214 | 7,007 | 22,833 | 241 | 330 |
| Salvation Army | 73 | 6,460 | 4,445 | 12 | 235 |
| Society of Friends | 3 | 98 | 1,693 | 13 | 31 |
| Universalists | 4 | 302 | 500 | 6 | 5 |
| Gen. Ev. Prot. Miss. Soc. | 5 | 355 | 329 | 6 | 10 |
| Japan Evangelists | 5 | ..... | ..... | 24 | 45 |
| Omi Mission . . . . . | ... | ..... | 600 | 7 | 37 |
| Oriental Mission Society | 31 | ..... | 2,000 | 13 | 73 |
| Seventh Day Adventist | 9 | 333 | 351 | 18 | 29 |
| Y. M. C. A. | 87 | ..... | ..... | 15 | .. |
| Y. W. C. A. | 2 | ..... | ..... | 10 | 15 |
| Canada Presbyterian | 14 | 2,086 | 1,484 | 20 | 59 |
| English Presbyterian | 13 | 4,569 | 2,383 | 20 | 97 |
| Other Protestant Societies | 21 | 1,540 | 4,308 | 29 | 136 |
| <i>Total Protestants</i> | <i>1,128</i> | <i>96,827</i> | <i>150,496</i> | <i>1,084</i> | <i>2,861</i> |
| Roman Catholic | 275 | 75,983 | ..... | 352 | 179 |
| Russian Orthodox | 267 | 36,265 | 2,021 | 1 | 159 |
| <i>Grand Total</i> | <i>1,670</i> | <i>209,075</i> | <i>152,217</i> | <i>1,437</i> | <i>3,199</i> |



VIEW OF AWAJI SHIMA, FROM MAIKO

XXXI. MINES AND MINERALS

MINING IN OLD JAPAN—NEW ERA IN MINING—RAPID DEVELOPMENT—MINERAL PRODUCTION IN
 DETAIL—THE FUTURE—CONDITION OF MINERS—COMMERCIAL NOTICES OF MINING COMPANIES.
 THE HISTORY OF OIL IN JAPAN—COMMERCIAL NOTICES OF OIL COMPANIES

THERE are authentic records to show that mining is one of the oldest of Japanese industries. The enterprise reached considerable development even as early as the sixth century, when the demand for metals in connection with the making of war weapons lent impetus to the winning of ore. With the advent of Chinese customs and the Buddhist religion, in the seventh century, metal became still more important for coinage and the casting of sacred images, as well as for the decoration of temples and shrines. In the fifteenth century there is every evidence that the mining of iron and copper became specially active, as the Chinese had begun to look to Japan for a portion of the copper used in minting. An era of still greater prosperity in mining began with the rise to power of the famous warrior Hideyoshi in 1583, as the unremitting strife between feudal lords created increased demand for metals, while captured prisoners were kept in safe custody by being put to work in the

mines. The export of copper and sulphur which began in the fifteenth century continued down to the seventeenth, when gold and silver were added to the list of metals in demand abroad.

MINING IN OLD JAPAN

THE opening of trade with Holland undoubtedly gave greater impetus to exports of metals, the foreigners taking large quantities of gold, copper, and silver in every cargo. The extent of this trade can be inferred from the fact that during the 153 years between 1611 and 1764, exports of gold amounted to 3,763,572 ounces, and of silver to 135,768,918 ounces, while exports of copper in the 256 years between the establishment of the Tokugawa shogunate in 1603 and the year 1859, amounted to 389,250 tons. At the beginning of the eighteenth century the export of copper to Holland and China was three times that of the quantity consumed in Japan. Such activity indicates that the

metal veins of the country must have been extraordinarily rich and very easily worked in those days. Of course, the mining industry was conducted according to traditional methods which were, no doubt, somewhat primitive. The usual method in Japanese copper mines, before the introduction of the Bessemer process, was mat smelting, which was suitable only for small work, a process still used in the less developed mines of Japan. The mat smelting process was invented in the Tada mine by a metallurgist of the sixteenth century. It is a simple form of the Bessemer process, and can be operated at small cost. The process adopted in the Tada mine spread to others. In the gold mines of Sado Island a pump on the principle of the Archimedian screw was used, and plans of the mines were drawn with specially prepared instruments, after surveys were taken. The method of selection was not unlike that of the dolly-tubs employed in the Cornish mines for separating tin. Reference is also

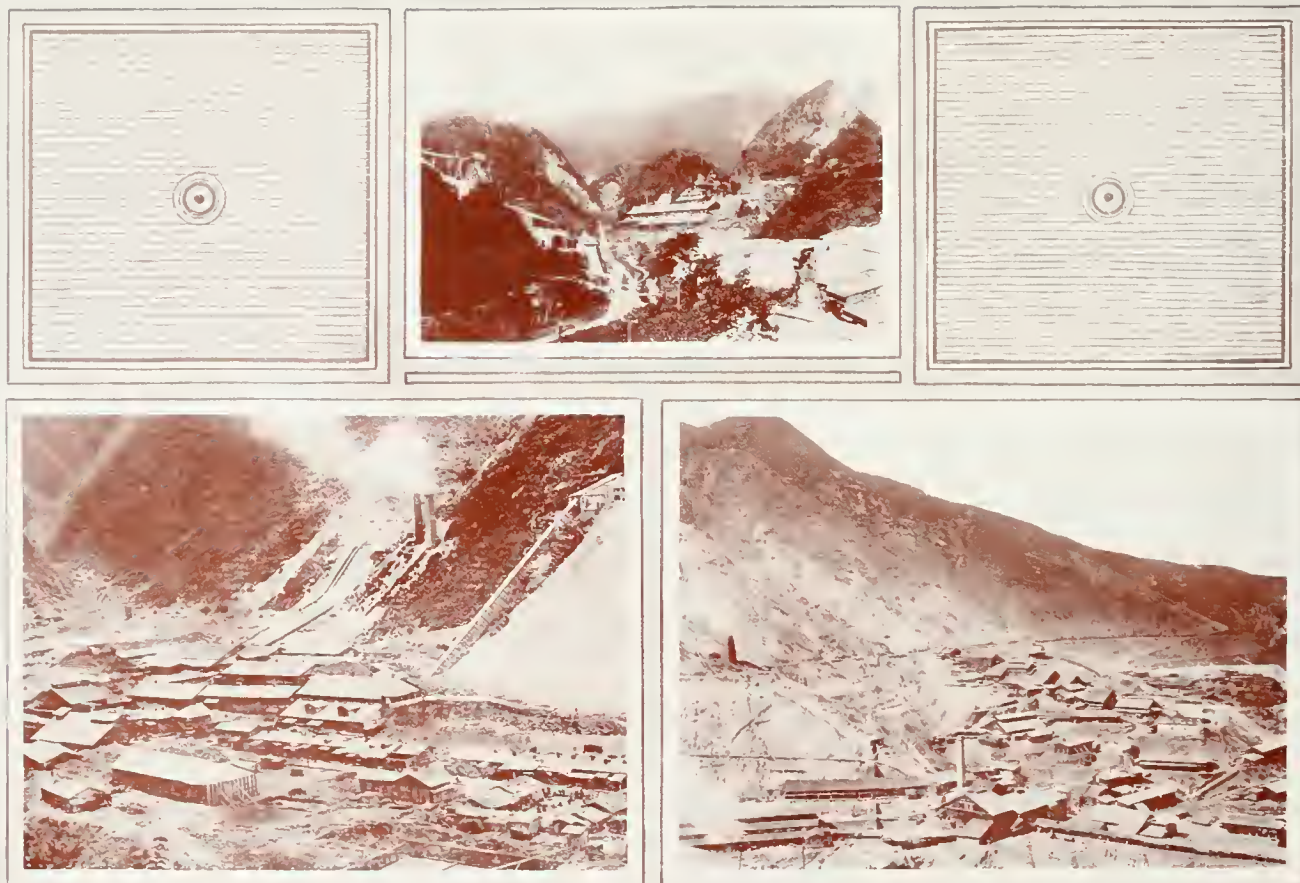
made in the old records to methods of separating gold and assaying gold and silver. But in the absence of any full application of scientific principles the industry suffered a tremendous handicap, an immense amount of manual labour being required to perform merely superficial work. Consequently as the upper veins became exhausted, and excavation, transportation, and ventilation grew more difficult, the industry declined and many mines were abandoned.

NEW ERA IN MINING

DURING the process of reconstruction and reform that began with the Meiji Restoration, it was soon seen that without the use of proper machinery and modern chemical methods the mining industry in Japan could not hope to make any substantial progress. In 1868 the majority of mines were worked in shallow bonanzas and ore shoots, and they were generally filled with water and foul air, while the unevenness of the mine beds caused considerable loss. At the same time, the general depression in trade during the closing years of the Tokugawa era reacted against

the mining industry. Then, with the opening of the country to Western civilisation, came the study and ultimate adoption of Western mining methods, the Government of the day laying on itself the responsibility of recovering the mining industry and promoting its development to the utmost. In 1873 special mining regulations were drawn up by the Privy Council, according to which obligations of mine owners were defined and a system of inspection instituted. The extension of mining rights to individuals was liberally accorded, and the industry no longer regarded as a Government monopoly. The mining regulations thus issued for the promotion and encouragement of the industry became laws of the nation on the opening of the Imperial Diet in 1890, and after subsequent revisions a new law was enacted in 1905. The Bureau of Mines was placed under the Department of Agriculture and Commerce, and for administrative purposes the country was divided into five districts, each having its own supervision office. In 1878 a Bureau of Geology was founded, which in time organised an institute for carrying on geological surveys

and duly publishing maps of the country. Mining engineers from Europe and America were engaged for the diffusing of scientific knowledge, and the old secret methods, so far as they were of any value, found a new basis, with Western mining machinery to make them practical, and mechanical power applied wherever possible. To describe all that the seventy or eighty Occidental mining experts did for the mining industry of Japan is beyond the limit of the brief space at our disposal. Suffice it to say that inside of ten years ten of the most important mines that had been closed for want of proper means of working, were reopened, yielding gold, silver, copper, iron, and coal in paying quantities. The mines were then all worked under expert foreign guidance and were used as training schools for miners who later opened other mines. After the desired results had been effected by Western training, official action was discontinued, though the Government still retains control of a few mines of iron and coal. The engineering college established by the Government in connection with the Imperial University, with the assistance of



MITSU BISHI COMPANY: (UPPER) ORE DRESSING PLANT AT THE SADO MINE — (LEFT) ARAKAWA MINE — (RIGHT) OSARUZAWA MINE

professors from England, has done a great deal for the promotion of education in mining. Such courses are now conducted at all the national universities and technical high schools, as well as at some private institutions

RAPID DEVELOPMENT

In 1875 Japan's total mineral output did not amount in value to more than 2,500,000 yen annually. In 1880 it was 6,700,000 yen, and by 1890 it had grown to 15,500,000 yen. Ten years later it rose to 49,000,000 yen, in 1905 it was 106,900,000 yen, while the total value of mineral output in 1913 was 146,000,000 yen, or about three times that of the previous decade. The mineral output of Japan to-day, including Korea, is about 200,000,000 yen a year in value. The number of mines existing in 1908 was 11,099, covering a total area of 2,362,777 acres, with 233,144 employees, and possessing 1,236 miles of railway, and 100 miles of cable tramway, while such as produce oil have 160 miles of piping. The following table illustrates the quantity and value of Japan's principal mineral output for periods covering five years for fifteen average years:

As to the amount of capital invested in mining operations there is no very reliable information, but the registered mining corporations, which represent about 75 per cent of the total, show a paid up capital of 178,146,600, yen, among which there are 53 companies with a capital of over 1,000,000 yen.

represent a value of nearly 60,000,000 yen annually.

MINERAL PRODUCTION IN DETAIL

The facts and figures already indicated form the basis of the present importance of the mining industry in Japan. The possibilities

| PRODUCTS | QUANTITY | | | |
|-------------------------|------------|------------|------------|-------------|
| | 1912 | 1913 | 1914 | 1915 |
| Coal (met. tons)..... | 20,046,081 | 21,762,036 | 19,518,480 | 17,836,750 |
| Copper (met. tons)..... | 63,893 | 67,967 | 67,000 | 72,500 |
| Iron (met. tons)..... | 56,731 | 56,971 | 58,500 | 49,750 |
| Gold (ounces)..... | 358,065 | 387,568 | 217,000 | 262,000 |
| Petroleum (gals.)..... | 67,586,860 | 71,779,000 | 89,500,000 | 100,000,000 |

| YEAR | EXPORTS | IMPORTS | TOTAL | EXCESS |
|---------------------|------------|-------------|-------------|------------|
| | Yen | Yen | Yen | Yen |
| 1904 | 29,996,164 | 73,268,684 | 103,264,848 | 43,272,520 |
| 1908 | 42,942,556 | 80,319,250 | 123,261,806 | 27,376,694 |
| 1913 | 57,612,495 | 111,283,761 | 168,896,256 | 53,671,266 |
| Average for 5 years | 46,987,755 | 89,974,109 | 136,961,864 | 42,986,353 |

| PRODUCTS | 1904 | | 1909 | | 1914 | |
|------------------------|------------|------------|------------|------------|-------------|------------|
| | QUANTITY | VALUE | QUANTITY | VALUE | QUANTITY | VALUE |
| | | Yen | | Yen | | Yen |
| Gold (oz.)..... | 88,756 | 3,880,685 | 126,324 | 5,077,058 | 222,044 | 9,430,000 |
| Silver (oz.)..... | 3,174,436 | 2,276,805 | 3,498,787 | 4,261,481 | 4,866,084 | 5,384,000 |
| Copper (tons)..... | 35,440 | 17,928,255 | 50,504 | 24,536,150 | 71,430 | 38,350,000 |
| Lead (tons)..... | 18,500 | 236,234 | 37,800 | 428,204 | 50,200 | 827,000 |
| Iron (tons)..... | 36,547 | 1,317,397 | 48,075 | 2,067,102 | 99,208 | 3,636,000 |
| Pyrites (tons)..... | 29,407 | 53,089 | 24,815 | 106,840 | 127,604 | 600,000 |
| Manganese (tons)..... | 6,265 | 37,884 | 9,756 | 51,119 | 3,010 | 15,900 |
| Antimony (lbs.)..... | 938,260 | 83,744 | 374,884 | 39,452 | 53,933 | 3,000 |
| Coal (tons)..... | 10,723,796 | 29,218,134 | 15,048,113 | 58,213,680 | 22,293,000 | 80,350,000 |
| Sulphur (tons)..... | 28,205 | 571,444 | 40,625 | 812,673 | 9,494 | 2,050,000 |
| Petroleum (gals.)..... | 51,452,320 | 2,776,433 | 79,137,728 | 6,428,514 | 107,184,000 | 9,631,000 |

The progress of output for Japan's principal mining industries for the years leading up to the European war was as shown in the table above.

A considerable portion of Japan's mineral output finds its way abroad, and during the European war there was a remarkable increase in this direction, especially as regards copper. In 1905 mineral exports amounted to 34,000,000 yen in value, and in 1910 they increased to 44,000,000 yen, while at the time of writing they are in the vicinity of 80,000,000 yen. The progress of exports and imports of minerals will be seen from the table above, which shows also how dependent Japan still is on imports of minerals.

Japan's principal mineral for export is copper, which is sent abroad annually to the value of more than 30,000,000 yen, and during the European war much more than this was realised. In normal times about 44 per cent of the copper exports go to Europe and 27 per cent to the United States. Next in importance among mineral exports comes coal, amounting to nearly 4,000,000 tons a year, chiefly to the Philippine Islands and the Straits Settlements, as well as Australia. The United States and Australia take most of the export in sulphur, the annual total being about 2,000,000 yen in value. Among mineral imports the chief are pig iron, iron bars, rod and plate as well as pipes, which

of expansion and further development depend on resources, and these must now be examined.

The most important of Japan's minerals at present is coal, which is of a non-metal variety and found chiefly in Kyushu, Hokkaido, and in certain parts of the main island. The oldest coal is found in the Mesozoic formation, but the greater seams are all in Tertiary strata, especially in Kyushu and Hokkaido. The Kyushu fields are in Chikuzen and Buzen, and supply about 75 per cent of the total, with about 10 per cent from Hokkaido and the rest from Honshu. The coal resources of the country have not been fully explored, but the Mining Bureau estimates that there are at least 1,738,000,000 tons in sight out of a total of 3,762,000,000 tons in workable seams not yet surveyed. Of this quantity 1,000,000,000 tons are in Kyushu, 568,000,000 in Hokkaido, and 170,000,000 tons in Iwaki, Ibaraki, and Choshu. The anthracite mined in Kyushu is of excellent quality, and more is found in Kii and Choshu in the main island. The predominant type, however, is a brown bituminous coal of which there are heavy deposits in both Kyushu and Hokkaido. The great Miike colliery in Kyushu works two main layers, one 20 feet thick in parts, and produces over a million tons annually. In the Fukuoka district of Kyushu there are over 20 mines. The coal-field of Hokkaido is at Ishikari, and is about 50 miles long by 12 broad. The best coal in Japan is produced at the Takashima mine on an island near

Nagasaki. Japan has also valuable coal resources in the big Fushun mines in Manchuria. Following are the more important mines, with locality, proprietorship, output, and number of labourers employed in 1914:

while in the northern arc the metasomatic type prevails, the vein type predominating on the inner arc on the Japan Sea side of the country. In the latter are found the greater number of mines. Of 53 principal mines,

the deposits are found in crystalline schists the percentage obtained is not above ten per cent and often as low as two per cent. The principal district for this type of mine is Miyazaki in Kyushu, but copper is found in almost every district in Japan with the exception of Saitama, Shizuoka, Toyama, Oita, and Kagoshima. The largest and richest copper mines in the Empire are those of the Fujita Company in Akita, the Ashio mines owned by the Furukawa Company, and the Besshi mines of the Sumitomo Company as well as the Kuhara Company of Ibaraki. The Ashio mine possesses a somewhat remarkable system of electric railways serving the workings, where the daily output is about 1,200 metric tons, which after concentration yields about 11 per cent Cu. At the Osaruzawa mine are employed the Mabuki hearths, an invention of the old Japanese smelters, which has been brought into line with modern ideas, producing about 11 per cent Cu. matte. The Ikuno mine is another good producer, with a large output of silver, and a high percentage of both gold and silver comes from the dressed ore of the Hitachi. There is no doubt that the copper industry in Japan is destined to experience still more remarkable development, especially as the export now represents between 50 and 60 per cent of the total production, whereas the export of coal is now only about 20 per cent of the total output.

| MINES | PREFECTURE | CONCESSIONAIRES | OUTPUT (Long tons) | LABOURERS |
|---------------|------------|---------------------------|-----------------------|-----------|
| Miike | Fukuoka | Mitsui Mining Co. | 2,011,046 | 9,976 |
| Mitsui-Tagawa | Fukuoka | Mitsui Mining Co. | 983,356 | 4,460 |
| Onoura | Fukuoka | Kaijima Tasuke | 791,879 | 6,195 |
| Yubari | Hokkaido | Hokkaido Coal & S. S. Co. | 696,953 | 5,008 |
| Mineji | Kyushu | Kurauchi, Y. | 663,528 | ... |
| Futase | Fukuoka | Government | 594,435 | 2,629 |
| Iriyama | Iwaki | Iriyama Coal Co. | 536,682 | 1,402 |
| Yoshinodani | Saga | Mitsu Bishi Co. | 535,550 | 3,160 |
| Meiji | Fukuoka | Meiji Mining Co. | 495,797 | 3,186 |
| Hokkoku | Fukuoka | Meiji Mining Co. | 495,576 | ... |
| Namazuta | Fukuoka | Mitsu Bishi Co. | 469,750 | 2,207 |
| Shinnyu | Fukuoka | Mitsu Bishi Co. | 421,665 | 4,945 |
| Mitsui-Yamano | Fukuoka | Mitsui Mining Co. | 409,882 | 2,320 |
| Tadakuma | Fukuoka | Sumitomo | 409,882 | 1,697 |
| Shiogashira | Fukuoka | Furukawa & Co. | 404,376 | 2,705 |
| Uchigo | Iwaki | Iwaki Coal Mining Co. | 375,199 | 1,408 |
| Mitsui-Hondo | Fukuoka | Mitsui Mining Co. | 369,395 | 3,084 |
| Ochi | Saga | Mitsu Bishi Co. | 363,572 | 2,476 |
| Kanada | Fukuoka | Mitsu Bishi Co. | 329,790 | 2,442 |
| Shin-Yubari | Hokkaido | Tokyo Gas Co. | 328,434 | 913 |
| Yoshima | Iwaki | Yoshima Coal Co. | 324,213 | ... |
| Matsushima | Nagasaki | Matsushima Coal Mng. Co. | 315,894 | ... |
| Kinoshima | Kyushu | Iko, T. | 285,290 | ... |
| Otsuji | Fukuoka | Kajima Mining Co. | 278,602 | 1,694 |
| Yoshio | Fukuoka | Aso, T. | 258,486 | 1,792 |
| Sorachi | Hokkaido | Hokkaido Coal & S. S. Co. | 248,460 | 1,957 |

Copper comes next in importance as a mineral product. It occurs in deposits of two kinds. The first and richest is as a vein in tuff or other volcanic rocks, the ore sometimes containing as much as 30 per cent of copper. Most of the ore is found both on the outer and inner side of the southern and northern arcs of Japan proper. In the southern arc the contact-metamorphic type is much in evidence,

veins supply 44 per cent, representing 32 mines; in 11 mines beds supply 20 per cent; in 3 mines metasomatic deposits supply 18 per cent; in 7 mines contact-metamorphic deposits yield 3 per cent of the output. Deposits of the vein type are worked in such mines as the Ashio in Tochigi, the Kosaka in Akita, as well as by mines in Niigata and Fukushima and the north generally. Where

In recent years *petroleum* has become one of the most important products of Japan's mineral kingdom, the petroliferous strata apparently extending from the northern to the southern limits of the Empire, chiefly in a narrow vein following the western coasts of the islands, occurring in Tertiary rocks of the same geological epoch as those of Galicia, California, and Baku. The chief oil wells are in Echigo and Akita, but there are five oil



SUMITOMO COMPANY: VIEW OF THE TREATMENT WORKS IN CONNECTION WITH THE BESSHI COPPER MINE, AT NIHHAMA

fields in all, whose depth ranges from 180 to 2,880 feet. Echigo alone has over 300 producing wells, and there are about 900 wells in all. Some remarkable gushers have been tapped, yielding over 400,000 gallons of crude oil a day, though the average yield of wells is comparatively modest, the specific gravity varying not only in each field but according

Tertiary rocks, especially in sedimentary and eruptive strata. The output of gold is constantly increasing, as, on account of the recent development in the smelting of copper ores and the invention of the cyanide process, gold is being extracted from ores that were formerly difficult to treat. In the principal mines, notably at Sado, the Yamagano and

occurs for the most part in the form of sulphides in tuff and other volcanic rocks, usually in association with copper, lead, gold, and zinc, the Kosaka mine being particularly rich in silver. Most of the best silver-producing mines are in Honshu, one of the largest being the Tsubaki. The ore is argentiferous galena and blende, and the silver content of the



GENERAL VIEW OF THE VILLAGE OF SAGANOSEKI, KUHARA MINING CO., LTD.

to depth. The petroleum industry is further treated in a special article.

Gold is found in almost every part of Japan, though not in any great quantities, the chief producing districts being Kagoshima, Niigata, and Hokkaido. There are also mines in Korea and Formosa. Placer mining is practised to some extent, but over 90 per cent of the metal is obtained from lode mining. The precious metal occurs in three types of deposits, the most important of which is contained in quartz veins in volcanic rocks, such as obtain in north Formosa, at Niigata, and the island of Sado in Honshu. The greater number of the veins found in Japan occur in

the Serigano, modern plants have been put up, complete in some cases, not only with cyaniding machinery, but with slimes plant. At Sado there is a battery with a capacity for treating 650 tons of ore per day, the ore averaging 0.0071 per cent and at Yamagano 0.0087 per cent. Alluvial gold is found chiefly in Hokkaido, and to a lesser extent at Ishikawa in north Honshu. Some of the deposits in Korea are being worked by American interests. The total output amounts to about 400,000 ounces a year.

Silver is found in much the same geological formations as gold, the chief mines being in Honshu, Kyushu, and Hokkaido. The metal

dressed ore averages 0.078 per cent, without gold or copper. In the Innai mine the dressed ore contains 0.1 per cent, with a small gold content. Over 60 per cent of the silver produced is obtained from argentiferous lead ores. The annual output is about 5,000,000 ounces.

Japan is not rich in iron deposits, but such iron as does exist consists of magnetite, hematite iron sand, and limonite, the first being the principal oxide, widely distributed but with few mines yet in operation. One of the largest deposits is at Wakamatsu, in Kyushu, where the Government iron works is situated, but there are other important



SUMITOMO COMPANY: AERIAL TRAMWAY AT THE BESSHI COPPER MINE

deposits at Kamaishi in Iwaté, north Honshu, where a quantity of magnetite is smelted. Hematite is also found in north Honshu at Akadani and Kamo, while limonite, or hydrated oxide, occurs in many places. Iron pyrites is found in Akita, Gumma, and Ibaraki, as well as in south Honshu. Japan, however, is obliged to bring most of her iron ore from China. The number of blast furnaces, which for some time stood at seven, has been increased, and the output of pig iron is now some 50,000 tons a year. Steel is produced to the amount of from 12,000 to 14,000 tons in acid open-hearth furnaces, and it may be noted that most of the steel made in Japan is manufactured by acid process. None of the ore is exported, and in view of the urgent need for expanding the native iron industry a good deal of prospecting has still to be done. In fact, the native iron and steel trade is still in its infancy, and the total production is about 250,000 tons of both pig iron and steel annually, which is far short of the quantity required for domestic consumption. While the annual production is only about 17,500,000 yen, the value of iron imports is almost 60,000,000 yen. The establishment of the Imperial Iron Works has given great impetus to the manufacturing side of the industry. The equipment is designed on modern lines, with several blast furnaces of large capacity—up to 150 tons—in operation, together with steel converters of the Bessemer type and an open-hearth plant.

In point of value *sulphur* is next on the list. It is but natural that in so volcanic a country as Japan large deposits should be

found. Only high grade deposits are worked, those yielding not less than 40 per cent. About 70 per cent of the total yield comes from Hokkaido. Other sulphur mines are in Fukushima and northward in the main island generally. Kyushu produces smaller quantities about the districts of Kagoshima and Oita. Zinc blende occurs in numerous veins with other metallic sulphides, Kamioka in Hida being the most important mine both for lead and zinc. Formerly the zinc ore had to be shipped abroad for refining, but recently the number of smelting plants has been increased and imports of this metal may be expected to diminish. The chief refineries are at Osaka, Miiké, and the Fujita Company at Kosaka mine, with electric refining works in Niigata. Lead occurs as sulphides containing more or less silver, in tuff and other volcanic rocks, Gifu being the most productive district. The total annual output is valued at 827,000 yen.

The only district producing *tin* to any extent is Kagoshima, though a little is produced in Gifu and Ibaraki. Tin is a new industry which was started by the Mitsu Bishi Company at its Ikuno mine in 1914, but the output is still insignificant and more than 380,000 yen' worth has to be imported annually. *Antimony* is produced chiefly in Ehime in Shikoku. It is also found at Nara and in Kyushu. The war caused a tremendous increase in the output. *Manganese* occurs in Hokkaido and in several districts in other islands of the Empire. About half the total yield comes from Aomori, the northernmost district of the main island, with

other mines in Kochi in Shikoku and near Kyoto, the annual output being valued at about 160,000 yen.

As to other minerals in Japan there are not many that are mined in sufficient quantities to be worthy of extended notice. Asphalt deposits occur in the district around Akita, and graphite is found principally in Iwaté in north Honshu as well as in Hokkaido, Gifu, Toyama, and Kagoshima. Phosphate ore has been found near Tokyo and in the Ishikawa districts and tungsten at Ibaraki and in Korea, the latter mines proving quite promising. Chrome iron ore is found at Tottori and near Kumamoto, and a little mercury at Tokushima.

The value of the total yield of minerals in Japan proper is now about 155,000,000 yen annually, with some 50,000,000 more for the output in Korea, of which nearly 60 per cent represents collieries.

THE FUTURE

The present preponderance of coal output and copper does not at all indicate that Japan is poor in other mineral possibilities, as almost every part of the country is mineralogically rich. The figures indicating production do not as yet begin to represent the potential and actual mineral wealth of the country. Owing to lack of proper facilities of transportation and the absence of modern methods of extraction still employed in many mines, this important industry has not kept pace with others. As soon as sufficient capital is attracted no doubt a vast increase of output in all directions may



KUNE MINES, FURUKAWA GOMEI KAISHA

be expected. The abnormal expansion of the mining industry in Japan after the war with Russia suggests that development largely depends on the amount of capital that can be attracted, which is still further emphasised by the fact that an increase of mineral output is certain to be associated with advance in metal manufacturing industries as distinguished from the mining and smelting of ores. The tremendous impetus lent to Japan's mining industries by the European war can not fail to be followed up by a permanent advance in operation and output. Applications for prospecting have greatly increased, and all mines are showing extended operations. The minerals indicating the most phenomenal increase in 1914 and 1915 are tin, with an increase of 2,110 per cent; zinc, 110 per cent; bismuth, 250 per cent; manganese and tungsten, 50 per cent; gold, 15.3 per cent; silver, 1.7 per cent; copper, 3.9 per cent; while coal decreased 8.7 per cent and iron 29.1 per cent. One of the most interesting features of the present situation is the increase in such rare metals as tungsten and molybdenum, caused chiefly by the war. The notable increase in gold production is due mainly to the discovery of new veins in Shizuoka Prefecture, but some are resuscitated mines. Another important aspect of the situation is the activity in zinc refining, the six refining works now not only dealing with all domestic ores but importing ore from China and the South Seas. Such wealthy and prosperous companies as the Kuhara, the Mitsu Bishi, the Mitsui, the Sumitomo, and the Okura have all introduced the latest scientific refining plants with a view to meeting the increasing national demand for iron and steel. The European war has made it imperative that Japan shall have some source of iron and steel supply independent of war conditions, as she can turn out only about 400,000 tons of the more than 1,500,000 tons required by her annually. The Government has made an appropriation of 35,000,000 yen more for improvement of its steel works at Wakamatsu, and is trying to double its output to some 600,000 tons. Large companies are being formed for similar purposes, one of which will have a capital of 50,000,000 yen, the iron ore to be imported from China. Indeed, the situation makes it absolutely necessary that Japan shall at all times have access to the iron mines of China, which will explain her political attitude on Chinese questions, when Western nations are puzzled to know why her interest in that country is so keen and persistent. The question of self-sufficiency in iron is the one vital problem of the political as well as of the mineral situation in Japan

at present, being frequently before the Imperial Diet, which has now committed it to the supervision of twenty specialists, who will see that the nation's iron interests and resources are duly safeguarded.

CONDITION OF MINERS

THE condition of miners in Japan represents some remarkable features, not the least of which is the comparative absence of strikes, though these are not wholly unknown. But the mine workers of Japan, especially those underground, as a rule are satisfied with their wages. The miner works from eight to eleven hours a day, usually about twenty-seven days a month, and his wages are no more than seventy sen a day for the highest, and forty-two sen a day for the lowest, while women get only twenty-five sen as a maximum and twenty-three as a minimum wage. These wages apply to metal mines, but in coal mines men get seventy-eight sen and women sixty sen a day, with forty-four sen as minimum for men and twenty-eight for women. Children, of whom there are many, get from sixteen to twenty sen a day in metal mines, and from thirteen to thirty-eight sen in coal mines. The number of males employed in metal mines is about 47,000, underground, and the number of females is about 23,000, of whom children both male and female, number about 1,000. Above ground the number of men in metal mines is about 34,000, with some 13,000 women and some 900 children. In coal mines the number of hands is, of course, greater. Underground, men number 103,000, women 38,000, with about 2,000 children, while above ground the number of men is 33,000, woman 15,000, and children 1,000. The following table will give some idea of the sexes and numbers of those employed in mining operations in Japan:

| AGE | UNDERGROUND | | ABOVE GROUND | | TOTAL | |
|---------------|-------------|--------|--------------|--------|---------|--------|
| | Male | Female | Male | Female | Male | Female |
| Under 12..... | 56 | 34 | 23 | 21 | 79 | 55 |
| Under 15..... | 1,563 | 930 | 921 | 1,027 | 2,884 | 1,957 |
| Under 20..... | 21,609 | 8,983 | 9,434 | 7,955 | 31,043 | 16,938 |
| Above 20..... | 128,837 | 29,544 | 64,679 | 19,697 | 193,516 | 49,241 |
| Total..... | 152,065 | 39,491 | 75,057 | 27,800 | 227,522 | 67,291 |

The Japanese miner is proverbially careless and accidents from fire and explosives are common. In 1914 the number of accidents was no less than 157,021, with 1,758 deaths, the total list of casualties numbering 159,002. The miners are usually natives of the district or the adjoining prefecture.



SUMITOMO COMPANY: THE VILLAGE OF TONARU, BESSHI COPPER MINE

They bring their wives and families and settle down in the thatched huts provided by the company, while the unmarried men live in large common-rooms. Food is supplied by the mine owners at less than the usual cost, and the miner is generally satisfied if he has enough to eat. The average Japanese, however, does not care for the life of a miner, and the mining companies have to have agents to secure hands, so that one often sees placards in cities calling for volunteers. The miners usually work in three relays per day, every few men having a boss, who gets a much higher wage than those he oversees. The Japanese miner is apt to be superstitious, and has a conviction that the spirits of all killed in the mines still haunt their dark chambers. If his lamp suddenly

goes out he believes a spirit has extinguished it. Seeing phosphoric light along mine floors, he says there is where the bones of the dead have crumbled into dust. Like all Japanese labourers, the miner sings as he works. Mine owners bear the expense of hospital treatment in case of accidents,



THE MITSU BISHI COLLIERY ON TAKASHIMA ISLAND

of pay during disablement, and of compensation in case of permanent disablement or death. In the larger mines the men have mutual aid associations to whose funds the owners contribute, and miners' children are educated either at schools established by the mine owners or at institutions subsidised by them, thus reducing the fees paid by the children. There is little disaffection among the miners of Japan, and when it does appear it is usually due to some injustice, such as the dismissal of some employee or the ill treatment of some popular member of a gang, rather than to improper wages, and then the usual method is to attack the house of the manager. The gang-boss wields absolute authority; his orders must be obeyed, right or wrong, and if one boss has a quarrel with another, the men take it up and soon there is a riot.

The five mining inspection offices exercise due control over such matters as ventilation, construction, and the use of explosives. The mine owners have to submit to these inspection offices the rules and regulations adopted for their men. The inspection offices are at Sapporo, Sendai, Osaka, Tokyo, and Fukuoka. While foreigners are not permitted to hold mining property in Japan, they are allowed to work mines in partnership with Japanese subjects. The Mining Law of 1905 authorises the Minister of Agriculture and Commerce to grant, cancel, or suspend mining rights. The area for coal mines must be not less than four acres, for other mines less, and in no case to exceed 820 acres. A limited time is allowed for the development of concessions registered, and all mines in operation must pay a tax of one per cent on value of products, except in the case of gold, silver, and iron mines. According to Japanese law, the owner of the land is not *de facto* the owner of the minerals it may contain; he has to make application for prospecting rights the same as any other man, in default of which another applicant

may have the right to work the mine on his property.

[EDITORIAL NOTE: While in the foregoing article the statistics furnished appear to be, in certain cases, far behind, we are assured by the writer of the article that they were the very latest official figures available at the time the matter was prepared. It is, however, generally recognised that the mining industry of Japan and Chosen made great strides during the period subsequent to the outbreak of the European war. This is particularly the case with copper and iron. The rapidly developed shipping industry of Japan has called for enormous quantities of iron and steel, and the limitation of exports from the United States has compelled the Japanese to concentrate attention on their own resources. These are admittedly scant, but such as they are, they are now being most energetically exploited by the Japa-

nese, and there has been quite a boom during 1917 in opening up iron fields in Chosen and Kwantung (Manchuria). The high price of copper has also led to strong development in that branch of mining. It is generally conceded that the figures of the production for 1917 easily exceed those of all former years, and the manufactured output of metals and mineral products will also show a heavy increase. With reference to the capital employed in this industry, we are entitled to infer from the increases that were recorded in 1917, in the case of the largest companies, and from the flotations of new enterprises, that the investment to-day is well over Yen 200,000,000. The Kuhara Mining Company alone has a capital of Yen 75,000,000, and the other big concerns such as the Furukawa, Suzuki, Fujitagumi, and Mitsu Bishi employ similarly large sums of money in the exploitation of the industry.]



TOKYO OFFICE OF FURUKAWA GOMEI KAISHA



KUHARA MINING COMPANY, LIMITED: GENERAL VIEW OF THE SAGANOSEKI SMELTING WORKS AND THE HARBOUR — GIGANTIC CHIMNEY AT THE SAGANOSEKI SMELTING WORKS — ANOTHER VIEW OF THE SAGANOSEKI SMELTING WORKS

THE KUHARA MINING COMPANY

THIS famous mining company is numbered amongst the most active of the big concerns of Japan, and though the title suggests only one enterprise, the Kuhara, like the Mitsu Bishi and the Sumitomo, is engaged in many varied commercial and industrial undertakings. Departments of the business comprise: (A) mining; (B) chemical industry in connection with mining; (C) manufacture and construction of machinery; (D) electrical works; (E) agriculture and forestry; (F) to carry on any of the foregoing businesses, pursuits, or undertakings, in partnership or on joint account with other persons or corporations. In addition, the Kuhara Company is now giving its attention to the shipbuilding industry.

The business originated in December, 1905, when Mr. Fusanosuke Kuhara purchased the Hitachi Mine in the prefecture of Ibaraki, and commenced operations there. The mine at that time was comparatively undeveloped, but when it came into Mr. Kuhara's hands he pushed on with explorations and development work and also established smelting works, the output of the mine being increased year by year, and the Hitachi property became known as one of the greatest in the Empire. Meanwhile several mines such as Higashiyama, Mineosawa, and Takeno were purchased, and the manufacture of machinery was started as a subsidiary enterprise. In September, 1912, the concern's organisation was changed and the Kuhara Company became a limited liability corporation, with a capital of Yen 10,000,000. The mines of Ose, Takanra, Toyoha, Kawadzu, Nii Kameda, and Yoshino were added to the company's possessions, and a smelting plant was erected at the port of Chinnampo, Chosen. In February, 1916, the company increased its capital to Yen 30,000,000, purchased the Kapsan Mine in Chosen, and erected the smelting works at Saganoseki and Iyejima. With these developments the opportunity came for the company to extend its operations to the outer world, and the capital was again increased to the huge sum of Yen 75,000,000. The mines operated by the company are scattered all over the Empire, and number 71 in all, including some properties which are held for prospecting. Besides these mines, the company has the Chinnampo Smelting Works, the Iyejima Zinc Works, the Saganoseki Smelting Works, the Hitachi Engineering Works, the Tsukudajima Engineering Works, Tokyo, and the Tawao Estate in British North Borneo. In order to govern and manage these enterprises, the company has established offices at the following centres: Main office, Osaka, Japan, and branch offices, at Tokyo, Japan; London, England; New York

City, U. S. A.; Singapore, Federated Malay Settlements; Tientsin, China; Tsinan, China, and Mukden, Manchuria.

The Kuhara Company has, in all, some 700 concessions for metal, coal, petroleum, and sulphur, the total area being 317,375 acres, with 41 miles of river bed. Due to a constant expansion of area mined and the development of treatment plants, the company's mineral production is annually increasing. The output for 1916 was: 4,428 kilos of gold; 57,928 kilos of silver; 23,674 metric tons of copper, and 1,182 tons of zinc, the total value being estimated at Yen 40,000,000. Comparing these figures with those of 1912, when the reorganisation of the concern took place, we find an increase of nearly seven times of gold and silver, and three times of copper, the value of the products having in the same period increased five times.

The production of manufactures has also increased by a little more than 220 per cent, the value of the output in 1912 having been Yen 792,422 as against Yen 2,542,447 in 1916. The number of employees in a clerical or technical capacity, but excluding those rated as assistant clerks, was 443 at the end of 1912. This number was increased to 841 at the end of 1915, and reached 1,457 at the beginning of August, 1917. The labour forces at the end of May, 1917, were 24,591. That the enterprise of the Kuhara Company has been singularly successful may be gathered from the statement that since 1912 it has always paid a profit of more than 30 per cent on the paid-up capital, and maintained this rate of earning even in 1914, when copper dropped so low in price. For the six months ending May 31, 1917, the profit was 80 per cent against the paid-up capital. The dividends paid to shareholders during these years were at least from 15 to 35 per cent per annum. The reserve funds have been increased every six months, and the total has now reached Yen 13,325,744, which represents 45 per cent of the paid-up capital.

While a technical description of the mines and works of the Kuhara Company would be out of place in this article, it may be said that the properties are developed or are being opened up along the most modern lines. The equipment is recognised to be the very best in the Orient, and the products of the various plants leave nothing to be desired.

The Tawao Estate in British North Borneo was acquired by the company in January, 1916. It is splendidly situated, and the soil is fertile enough not only for a rubber and coconut plantation, but for one-year crops such as rice, tobacco, hemp, sugar, etc. The area of the estate is 26,710 acres, of which the company has the lease of 3,310 acres, an application now being lodged for the balance.

The Kuhara Company has made rapid progress with development, there being 471 acres already under rubber.

The Kuhara Company in 1917 took up, with its usual energy, the question of shipbuilding, forming a subsidiary company for this purpose. The details of the new enterprise are, however, given in the Tokyo section of this work. (See page 634.)

THE FURUKAWA GOMEI KAISHA
(FURUKAWA & CO.)

MORE than ordinary commercial interest attaches to the history of several of the great industrial houses of Japan, because in writing of their origin and development one necessarily writes of the origin and growth of some of Japan's greatest industries. Such is the case with the Furukawa Gomei Kaisha, a concern which ranks among the pioneers of the mining and metal industry of the Empire, and is to-day perhaps the greatest organisation of its kind in the entire East. Under the control of the Furukawa Gomei Kaisha are many of the richest and best developed mining properties in Japan, and its smelters, refineries, foundries, and iron and steel works are famous for their management and for the fineness of their products.

It is now over forty years since the late Mr. Ichibei Furukawa established the business and made it the first copper concern in Tokyo. He was energetic, far-seeing, and progressive, and under his direction the business became one of first rate national importance. The mines were worked under the most modern systems, and as the output increased, mills and factories grew apace to handle the crude products. To-day the kaisha has eleven branch offices, four copper works, and twenty-five mines, whose grand total area is about 70,000 acres, employing 2,000 officials and 35,000 hands. The annual production is 35,000 tons of copper, 220,000 tons of copper ore, 1,200,000 tons of coal, and large quantities of bullion, lead ingot, silver ore, gold, zinc, and by-products. The principal mines are: Ashio, Ani, Nagamatsu, Muzusawa, Otori Kune, and Furokura (copper); Kijo gold mine, Innai silver mine, Daira lead mine, and the Shakanoo, Shiogashira, Dai-ni-Shakanoo, Shimoyamada, Shin-Shakanoo, and Yoshima collieries. The company deals in all kinds of ores and metals, in the crude, manufactured, or partially refined stages, and also through its agencies in America, Australia and elsewhere, is able to handle practically any metal or by-product of the world. The quality of the products from the company's own mines is spoken of in metallurgical circles as of the very best. The establishment of the company's first copper refinery dates back over thirty-two



FURUKAWA GOMEI KAISHA: ASHIO COPPER MINE — NIKKO COPPER WORKS — ENTRANCE TO ASHIO COPPER MINE —
POWER HOUSE OF THE ASHIO COPPER MINE AND WORKS — INTERIOR OF BESEMA WORKS



GENERAL VIEW OF THE SUMITOMO

years, when the refining of crude copper ores from the mines under their own control was started at the works at Yanagiwara, Honjo, Tokyo, and the products were gradually introduced to the Japanese markets. The electrolytic process was adopted in 1889, and in 1895 a copper wire works of a rather primary nature and scale was erected to meet the demand of electrical requirements, then rapidly developing. Extensive improvements followed, and in 1902 the kaisha began making trolley wire for traction purposes. The great advances then being rapidly made in all branches of electrical engineering demanded that the company should move with the times, and in 1905 both refining and wire works were erected at Nikko, occupying an area of twenty-five acres, inclusive of five acres for buildings. Two years later the original works at Tokyo were discontinued. The works at Nikko are regarded as modern and complete in every respect, and a world-wide reputation has been won for the products. The works are fully equipped with smelting furnaces, rolling apparatus, and a complete set of wire-drawing machinery capable of making every description of copper bare wire for electrical uses, from the largest sized trolley wire down to the wire necessary for the finest and most delicate mechanism, the output totalling 2,500 tons monthly, of which 80 per cent is for domestic consumption. In addition, the works are well provided with chemical, physical, and electrical laboratories, all problems arising from time

to time being solved by entirely reliable and accomplished experts. The systems of inspection and testing are most modern, and as a consequence the Furukawa Gomei Kaisha has earned the very best name for the uniform quality and thorough reliableness of its products, which conform in all respects to the highest accepted European standards.

To give a detailed description of the products of the Furukawa Gomei Kaisha is impossible in small compass. An extensive domestic and foreign trade is done in every line of metals, ores, and manufactures, such as wires, cables, bearing metals, and ingots. The company are sole agents for the Yokohama Electric Wire Works, the Taisho Kogyo Kabushiki Kaisha, and the Takata Coal Co. Works are maintained at Nikko, Tokyo, Amagasaki, and Mizushima. The head office of the Furukawa Gomei Kaisha is at Yaesucho, Kojimachi-ku, Tokyo, and the branches are at Osaka, Moji, Wakamatsu, Hakata, Shanghai, Hankow, Hongkong, Dairen, and New York. The company has representatives and agencies at London, Petrograd, Moscow, Vladivostock, Harbin, Bombay, Calcutta, and elsewhere.

The immense business of the company was directed by the late Mr. Junkitchi Furukawa, a son of the founder of the concern, from 1903, and upon his death in 1907, his brother, Baron Furukawa, became President of the enterprise. The present officers of the Furukawa Gomei Kaisha are: President, Baron Toranosuke Furukawa; Managing Director, Dr. Rokusaburo Kondō;

and Directors, Dr. Masayuki Otagawa, Mr. Koji Inouye, and Mr. Bunjiro Konda.

THE HOUSE OF SUMITOMO

IN the House of Sumitomo there is found one of the most ancient firms in Japan—a firm in which the stability of an old house and sound business principles of a noble *entrepreneur* are well combined. Ever since the discovery of the Besshi Copper Mine in 1690—four years before the foundation of the Bank of England, so far back does the Sumitomo's business record go—the family has been engaged in mining. The firm were for nearly two centuries concerned with no other business, and were quite satisfied with the slow but steady progress they made in working and developing the copper mine. They carried on the development of mining with unwearied research and scrupulous fidelity, and so laid the corner-stone upon which the present structure of the Sumitomo firm has been reared. Soon after the Restoration in 1868 they began to advance loans against merchandise and shares, affording facilities for the enhancement of the commerce of all the "river valley" of the day. On the other hand, they started export business with their product, providing a special office at Kobé, known in later years as Sumitomo Copper Sales Department. When they had entered upon a general financial business, they paved the way for a bank with a capital of 30,000,000 yen, and a warehouse, with its branches all over the city and Kobé, as well as Tokyo, for there



STEEL WORKS AT NISHI-KU, OSAKA

have sprung up, in later years, the Sumitomo Bank, Ltd., and Sumitomo Warehouse, in the course of the firm's evolution. As nations grow in intelligence and civilisation, their industry extends. Japan's has vastly advanced and the Sumitomo's, too! During the year 1894 they bought out a copper rolling concern in Osaka, their old and original seat, and started manufacturing their copper from the Besshi Mine into plates, rods, tubes, and all sorts of things. A few years later, to reinforce their manufacturing facility, they took up another works in the metallurgical line of business, and made it a branch of their copper rolling works, where zinc plates and rods, aluminum plates, and all sorts of wires for electrical purposes, both bare and insulated, were made. Since that date, improvement has been regularly made to keep up with important changes and remarkable advances in all branches of metallurgical industry and electrical engineering. The works is very well known as the first one that succeeded in turning out home-made shipbuilding materials of a quality that could be relied upon. Their pipes and steam-turbine materials are both approved for use by the Imperial Japanese Navy. In 1894, the firm procured a coal mine in Tadakuma, Chikuzen, Kiushiu. The concession covers an area of over nine thousand acres and yields some five hundred thousand tons per annum of black and bituminous coal of high heating value. Coal from the mine is selling very well on account of its high heating value,

which makes it so suitable for the production of coke. In 1901, a small private steel manufacturing corporation, then in existence by the name of Nippon Steel Works, was taken over by the firm, who launched out as steel manufacturers. The Sumitomo Steel Works, it must be noted, was the first private steel works to set up in Japan, and there was little indication in its earlier existence of the prosperity which it was later to enjoy under the firm's name. Along with the development of the business that has followed fast upon the public appreciation of its products, shops and sheds have been erected, and plants and furnaces have been installed. The works turns out over a million tons of wheels, axles, rollers, cylinders, toothed wheels, ship and engine accessories, etc., every year. It is now a maker approved by the Imperial Japanese Government, and by Lloyds, in England. Six years ago (1911) the wire and cable factory of the firm, where the first paper cable in Japan had been produced, was made independent of the copper works, to accompany the steady growth of its business. The Sumitomo Electric Wire and Cable Works is the name of the new works, which has been separated from the parent works. In its present buildings, important improvements in manufacturing of all kinds of wire have been invented and adopted. Its business and plants have rapidly developed. The factory equipment is the most extensive and best accommodated one in the Orient. Its products have the appreciation of the Depart-

ment of Communications, Japan, for their unexcelled quality. The ores mined at the Besshi Copper Mine contain sulphur beside copper and other components, but none of them had been treated for their sulphur content till 1913, when the Sumitomo Fertilizer Manufactory was established in Niihama, Iyo Province. The factory is now in full operation after three years of preparation. It produces some two million tons of artificial fertilizer which are sold through the firm's selling agents, one in each prefecture, direct to the farmers. The firm's mining activities of recent years in the northern part of Japan must also be noted. Their gold mines in Hokkaido, among others, have such good prospects that, it is said, it will not be long before the Sumitomo will enjoy as world-wide a reputation as a gold producer as it does now as a copper supplier.

These different enterprises are continuing as prosperous as ever under the personal guidance of the energetic captain of industry, Baron Kichizayemon Sumitomo, present head of the firm and family. He is a younger brother to Prince Tokudaiji, ex-Lord Chamberlain-in-Chief to His Late Imperial Majesty Meijitenno, and to Marquis Saionji, a political star that illuminates Modern Japan. He was adopted into the Sumitomo family in 1892, when he was twenty-eight years old, and set out on a tour to Europe and America in 1897. The days spent on his trip were well employed, for he visited many works, factories, and mines. Baron Sumitomo



SUMITOMO STEEL WORKS: ENTRANCE TO NO. 3 PIT AT THE BESSHI COPPER MINE

studied organisation and system that would promote the happiness of his men. Soon after his return, he was elected a member of the House of Peers, but he resigned in order to apply himself more closely to the development of his enterprises. On August 25, 1911, he was created a baron in recognition of what he had done for the sake of industrial Japan.

SUMITOMO GENERAL HEAD OFFICE

THE entire organisation of the Sumitomo Company is controlled through the Sumitomo Honten, or Head Office. Baron Sumitomo is the head, and has with him in the management of the firm's vast interests, a Board of Directors, which comprises Messrs. Masaya Suzuki (Director in Chief), Kin-kichi Nakada, Kwankichi Yukawa, and Munio Kubo. There are two joint Managers, Messrs. Yoshitaro Yamashita and Masatsune Ogura. The four directors and two managers keep all the various enterprises under their control and account to Baron Sumitomo for all affairs of importance, and also see that his policy is carried out.

Each department has its own executive, who reports to his special director. It is interesting to mention the great change which has taken place in the attitude of the Sumitomo towards foreign trade. Although the old firm was as good and as stable as any concern in Japan, its policy was restricted and the general attitude was one of self-centralisation and self-satisfaction. With the present Board of Directors the Sumitomo to-day is always closely in touch with world affairs. It has become a firm with a broad vision whose horizon takes in every part of the globe, and finds interests in all phases of the world's business activities.

SUMITOMO BESSHI MINING OFFICE

MR. MUNIO KUBO is President of this branch of the Sumitomo enterprises and

has the assistance of two co-managers, Messrs. Junkichi Matsumoto and Komadzuchi Ohdaira. The famous old Besshi Copper Mine was discovered in 1690, and has been worked ever since by the family. The mine is situated in the central part of Shikoku Island in the Inland Sea, and the mining concession extends over 6,480 acres. There is no richer copper mine east of Suez. This one mine has produced 194,552 tons of refined copper and the product has become famous all over the world under the name of "K. S. Ingots of Japan," its purity being 99.7 to 99.9 per cent of copper. The Besshi Mine is a model of modern working, its plant and general equipment being the finest in Japan. The firm has all accessory departments of the mine, such as machine shops, etc. There are 3,700 men on the payroll, and for this army of employees the Sumitomo has provided every convenience for the betterment of working and living conditions, such as workmen's quarters, schools, a hospital, and so on.

SUMITOMO WAREHOUSE

THIS is a separate department of the Sumitomo business, and was established to provide warehouse accommodation for goods taken by the Sumitomo Bank on mortgage. Since then it has developed into a public business, the company having erected godowns in various centres. Some idea of the popularity of this institution may be gathered from the fact that the company now has goods valued at Yen 60,000,000 entrusted to its care. Mr. Chojiro Kusaka is the Manager of this department.

WAKAMATSU COAL DEPARTMENT

THE Sumitomo has in the Wakamatsu Colliery one of the finest mining properties

in the whole of Japan, and the working and equipment of the colliery are in keeping with the extent and richness of the concern. This colliery produced, in 1915, 352,900 tons of black and bituminous coal of the highest grade. Over 3,000 men are engaged in this branch of the Sumitomo operations, under the direction of Mr. Yoshiharu Yoshida.

SUMITOMO COPPER WORKS

THESE works are located at Ajigawa, Kita-ku, Osaka, and deal principally with the output of the Besshi Mine. The plant covers 13.61 acres, and employs 2,700 hands. Dr. Enju Adagiri is President of the subsidiary company, and Mr. Kumajiro Honjo is the Manager. The works are divided into six departments, comprising foundries, sheet and plate mill, tube mill, bar mill, steel tube mill, and testing department. It may be taken for granted that the plant is up to date in every respect and is staffed and equipped in the best style. The company produces many kinds of materials, and its output finds a ready demand among its numerous customers, including the Imperial Navy.

SUMITOMO ELECTRIC WIRE & CABLE WORKS

THOUGH this enterprise was only started in 1908, the works have the reputation of being the most efficiently equipped in the Orient. It is, in fact, the only plant in Japan where the system of "standardised production" has been introduced. All classes of electric wires and cables are manufactured, and several new processes have been introduced to the industry through these works. In 1911 the works employed no more than 180 hands, but the number to-day is over 2,000. The products of the Sumitomo Electric Wire & Cable Works are extensively



VIEW OF SHISAKAJIMA SMELTING WORKS OF THE BESSHI COPPER MINE



KONOSHIMA (WEST) AND KONOSHIMA (EAST) WORKS OF THE OSAKA ZINC MINING AND SMELTING CO., LTD.

exported to India, Australia, Russia, China, Italy, and Canada. Dr. Yasuo Riko is President, and Mr. Denichiro Nishizaki is Manager. The works are advantageously located at Okijima-minamicho, Nishi-ku, Osaka.

SUMITOMO FERTILIZER MANUFACTORY

This plant is under the direction of Messrs. Niihama Iyo and Kamajiro Kajiura. The output includes sulphuric acid, nitric acid, superphosphate, compound manure, and complete manure. Though it is one of the youngest amongst the firm's enterprises, its products are well known in all the local and foreign markets. The plant is of the very best type, and as the company has no lack of raw materials from the Besshi Mine and the copper works, the plant is able to produce more phosphate than is turned out by all the other works in Japan.

SUMITOMO STEEL WORKS, LIMITED

This enterprise is organised as a separate company, the directorate comprising Baron Sumitomo, President; Messrs. Kinkichi Nakada and Yoshio Iijima, Managing Directors, and Messrs. Masaya Suzuki, Kwankichi Yukawa, and Yoshitaro Yamashita, Directors. Messrs. Munio Kubo, Shizetaro Ueno, and Masatsuma Ogura are the Auditors.

The works are situated at Shimaya-cho, Osaka, and claim the distinction of having been the first of the kind to be established in Japan. The operations are confined to the production of steel castings with one fifteen-ton acid process and one basic Siemens furnace of the same capacity. Among the products are cast steel crossings, turns, wheels, etc., for railways, collieries, and mines; all essential parts of marine boilers and engines, propellers, propeller-blades, anchors, marine steering gears, and general shipwrights' materials; rollers, for iron, copper, and brass mills; hydraulic cylinders; yokes for electric dynamos, gearings with straight or helical teeth, dredger buckets, etc., and all heavy parts of machinery. The works have received Lloyds certificate and have also won the highest awards at industrial exhibitions at home and abroad.

THE OSAKA ZINC MINING & SMELTING COMPANY, LIMITED

UNTIL a few years ago the zinc ore produced in Japan was always exported to Germany and Belgium, where it was refined and treated for commercial purposes, and then shipped back to Japan. A large opportunity awaited the establishment of domestic treatment plants, especially in view of the increasing production of the crude ore from the rapidly developed mines

of Japan and contiguous countries. To take advantage of the situation the Osaka Kogyo Shikenjo was established at Amagasaki, Hyogo Prefecture, and the treatment of ore was started. In October, 1911, another company was founded with a capital of Yen 1,000,000, and a little later the business of the Osaka Kogyo Shikenjo was transferred to it, the new amalgamation becoming known as the Osaka Zinc Mining & Smelting Company, Ltd. The business of the company was not flourishing for some time, but with the outbreak of the war and the entire stoppage of all imports of zinc, the promoters of the industry had the chance to carry out their long-cherished design and to show the world their mechanical ability. The factory at Amagasaki was enlarged, and at the same time the Konoshima factory was newly established in Okayama Prefecture and, also, electric refineries were erected at Torishima, Osaka Prefecture. From this moment the industry was put on a proper footing and ever since the output has increased, and its quality has improved. Such a degree of prosperity has been attained that the Osaka Zinc Mining & Smelting Company, Ltd., is now turning out about 60 per cent of the total production of Japan, and the products are regarded with the highest favour abroad. In the Konoshima refinery, Mr. Van Gulck, a Belgian expert metallurgist, has been engaged since the end of 1916, and the manufacturing under his direction has been most successful. The company produces zinc sheet, refines gold, silver, lead ore, copper ore, and other basic mineral products, manufactures zinc chloride, sulphate of copper, sulphuric acid, and bleaching powder, and, furthermore, supplies cheap electrical current by means of its powerful water plant, which is operated under the name of the Meiji Suiryoku Denki Kabushiki Kaisha. A most important project now before the directorate of this company is the starting of mining operations in China, Korea, and other Oriental and Southern territories, wherever there is a possibility of obtaining base ore in ample quantity. For instance, the company is now negotiating the purchase of a big copper mine in Kosho County, in the north of Heiando, Korea. Mining is now actually going on in connection with this property, the operations being conducted under the name of the Kosho Mining Company, Ltd.

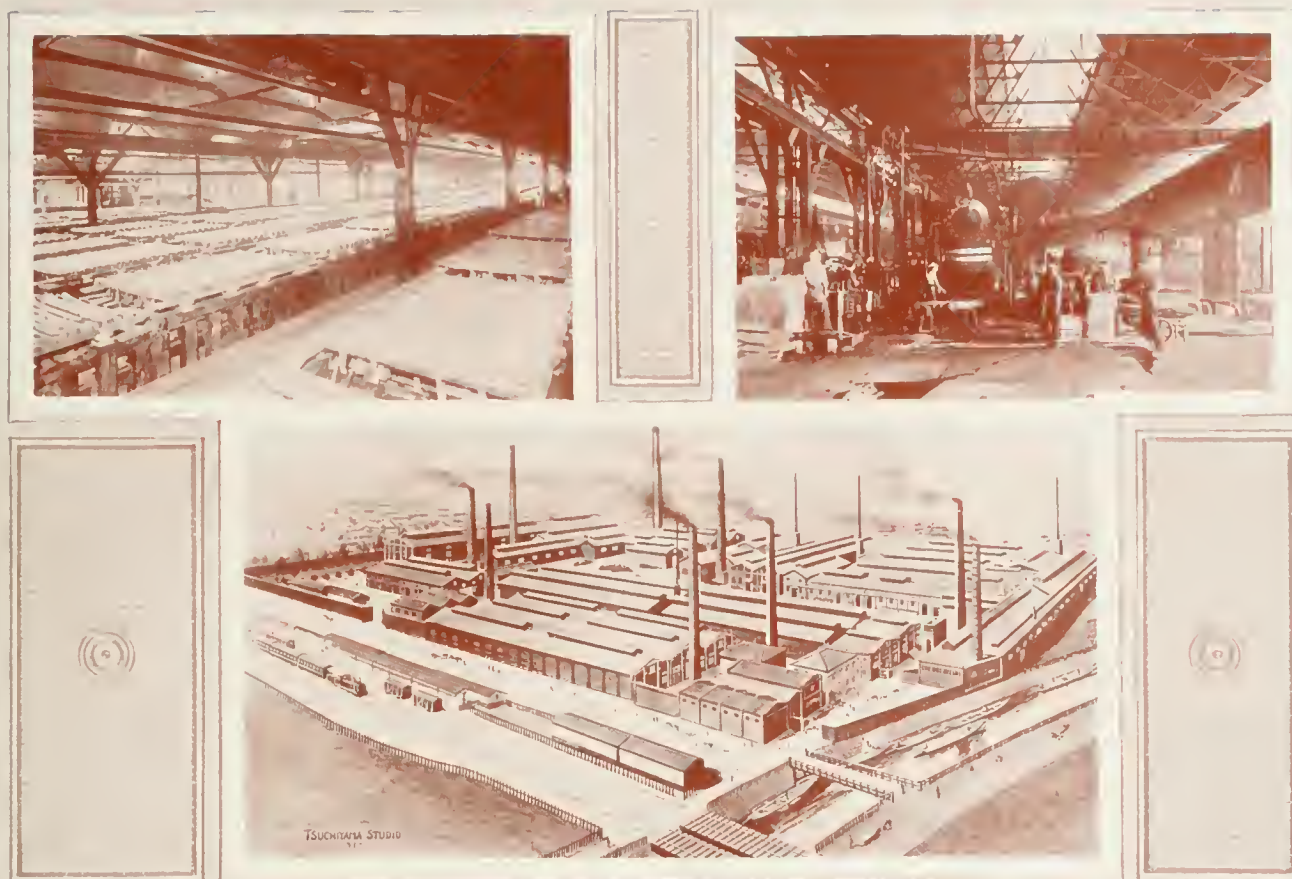
The Osaka Zinc Mining & Smelting Company, Ltd., has its head office at No. 20 Kitamachi, Dojima, Kitaku, Osaka. The factories are: Konoshima, where the area held covers 175,000 tsubo and the buildings cover 15,144 tsubo; Amagasaki, area 1,373 tsubo, buildings 853 tsubo; and Torishima,

area 5,602 tsubo, buildings 3,055 tsubo. A staff of 400 officials, experts, and clerks are engaged at the head office and factories, and the mill hands number 4,634. The capital of the company has been increased on more than one occasion, the last being in May, 1917, when the sum was raised to Yen 7,500,000, of which Yen 5,000,000 is paid up. The reserve fund amounts to Yen 4,544,905. The following is a list of the products manufactured by the company, with the annual output given for each: Pure zinc (high grade spelter) of over 99.9 per cent, 12,000 tons; pure zinc of over 99.5 per cent, 2,000 tons; primary spelter, 98 per cent, 5,200 tons; electrolytic copper, 2,500 tons; soft pig lead, 6,000 tons; zinc dust, 500 tons; silver, 25,000 pounds; chloride of zinc, 600 tons; sulphate of copper, 500 tons; ordinary sulphuric acid, 108,000,000 pounds, and strong sulphuric acid, 43,200,000 pounds. The following shows the volume of the export business done by the company during 1916, and exemplifies how solidly Japan is now producing for markets from which she once imported: 828 tons of pure zinc sold in the general market; 3,144 tons, to the Imperial Army and Navy; 4,073 tons to Britain; 2,907 tons sold to Russia; 2,643 tons sold to France; 51 tons sold to the United States; 2,581 tons of slab zinc sold to the general market; 80 tons sold to the Imperial Army and Navy; 1,118 tons sold to Britain; and 1,498 tons sold to Russia.

As to the general business policy of the Osaka Zinc Mining & Smelting Company, Ltd., it may be said that it does not believe in distributing all its profits to the shareholders, but is consistently building up reserves, and paying off capital, while it is spending large sums on experimental work for the improvement of its products, and is also carrying out arrangements for the promotion of the technical skill of its employees. Nevertheless the profits of the enterprise distributed to shareholders have been substantial. In the last half of 1915 the dividend was 18½ per cent, 20 per cent in the first half of 1916, and 10 per cent in the last half of that year. The Directorate of the company is as follows: Messrs. H. Fujita (President), S. Hashimoto (Managing Director), K. Tsujimoto, Y. Takagi, N. Saka, and T. Sakano. The Auditors are Messrs. R. Sakai and S. Yamashita. The Sales Department of the Osaka Zinc Mining & Smelting Company, Ltd., is at No. 26 Tosabori-dori, Nishiku, Osaka.

OSAKA DENKIBUNDO KABUSHIKI KAISHA

THIS company, known in English as the Osaka Copper Refining Company, Ltd., was



OSAKA COPPER REFINING CO., LTD.: VIEW SHOWING THE ELECTROLYTIC REFINING PROCESS—VIEW SHOWING THE PREPARATION OF COPPER, BRASS, AND ZINC PLATES—GENERAL VIEW OF THE FACTORY

founded in April, 1893, with a capital of Yen 300,000, and operated a metal refining and treatment works in a small way of business, before it launched out on its present wide scale of operations, which has made it one of the largest works of its kind in Japan.

Coincident with the development of mining in Japan, and the expansion of manufacturing industries calling for copper, zinc, etc., the Osaka Copper Refining Co., Ltd., experienced a strong demand for its products. This necessitated extension of the plant, the installation of new machinery, and other improvements, following the lines of the leading refineries in other parts of the world. To carry out this work the capital of the company has been increased on several occasions and now stands at Yen 5,000,000. The main plant of the Osaka Copper Refining Company, Ltd., is at 571 Temmabashisuji, Nishi Nichome, Kitaku, Osaka, and covers an area of 12,500 tsubo. The buildings are of stone and brick, and house the most modern of plants for the production of fine brass, copper, electrolytic copper, zinc plate, etc.

The annual output of copper alone is about 35,000,000 pounds per annum, valued at Yen 17,000,000. The office staff of the company comprises 30, and there are 50 engineers and about 1,500 workmen. At Chinan, in the Shantung Province, China, the Osaka Metal Refining Co., Ltd., has a branch works and sales department. To keep the works going at full capacity the company not only utilises a large quantity of crude ores produced in Japan, but also imports extensively from China, India, Australia and elsewhere, in return shipping the refined products to Europe, China, and India. The sole sales agent for the products of the Osaka refinery are the Mitsui Bussan Kabushiki Kaisha. Mr. S. Matsuoka is the President of the Osaka Copper Refining Co., Ltd. The Managing Director is Mr. S. Suzuki, and the Directors are Messrs. S. Yoshida and S. Kotera. The inspectors are Messrs. T. Koono, S. Kitamura, and S. Noda.

THE FUJITA COMPANY

THERE are a few companies in Japan which, although private enterprises, may

yet be said to be great national concerns in the sense that their work is of first-rate national importance, the profits from the undertakings going to the shareholders, but the real benefits of the enterprise displayed, accruing to the Nation and the people. Foremost amongst such companies must be named the Fujitagumi, or Fujita Company. This powerful concern has carried out work of such an important nature that it is rightly regarded more in the nature of a branch of national development than as a private corporation. A specific instance of this work of the opening up of new sources of wealth and industry may be mentioned. The Fujita Company has largely made Japan independent of foreign countries in the production of ferro-alloys, but the most conspicuous evidence of its broad-minded national policy is the reclamation of a large tract of tidal-water land at Kojima Bay for agricultural purposes. Reclamation for public purposes, such as the provision of quays and harbour approaches, etc., is fairly common throughout the world, but it is necessary to go to Holland



HEAD OFFICE OF THE FUJITA GUMI AND THE FUJITA MINING CO., LTD., OSAKA — THE FUJITA BANK, LTD., OSAKA

to see similar work to that carried out by the Fujita Company at Kojima Bay. Here the company has already placed 4,000 acres, out of a total of 12,000 acres, under rice production, and when the work is completed it is anticipated that there will be an annual production of about 4,000,000 bushels of rice of a value of Yen 3,000,000. What this means to a country like Japan, which needs every acre of rice land that can be obtained in order to make up the present deficiency between rice production and domestic consumption, can better be imagined than stated in set terms. The company's undertaking is recognised as a striking instance of national spirit, and it is not surprising to learn that the new rice area is now officially known as Fujita County, in honour of the founders of the scheme.

It would be impossible to describe in detail all the activities of the Fujita Company.

The company is associated in a vast number of enterprises, all tending toward the development of the resources of the Empire. These enterprises may be enumerated as follows: mining and smelting, production of timber, direction of timber mills, cultivation of rice and cereals, development of agricultural lands, and the financing of various other industries. Farther afield, the company is deeply interested in the development of rubber plantations in the Malay Peninsula. Before dealing with these various activities it is well to mention that the business of the company was founded in 1869 in Osaka, the commercial and industrial centre of Japan, by the late Baron Denzaburo Fujita, who did as much as any man could have done toward the exploitation of the latent resources of the Empire, not merely with the object of deriving profit from his energies, but with the broader object in view of doing

his best to make Japan, as far as possible, self-contained, and independent of foreign countries. The founder of the company has passed away, but on his death he was succeeded by his eldest son, Baron Heitaro Fujita, who is now President of the company. The registered capital of the Fujitagumi is Yen 6,000,000, but the capital actually in operation in the various enterprises exceeds the large sum of Yen 50,000,000.

Preëminent among the activities of the Fujita Company is its close association with the mining industry of Japan. When metallic mining was started in Japan the company was among the first to take an active interest in it, and started mining operations in 1880, leading the way with the adoption of the best methods and the latest machinery and appliances as utilised in Europe and America. The total number of mining claims held by the company in Japan and Korea is 127, while



DIRECTORS OF LARGE MINING INTERESTS

(Upper Row, Left to Right) Mr. HISAHIRO NAITO, President, Nippon Oil Co., Ltd.—Mr. KEIZABURO HASHIMOTO, President, Hohden Oil Co., Ltd. (Middle Row) Mr. SENNOSUKE HASHIMOTO, Managing Director, Osaka Zinc Mining and Smelting Co., Ltd.—Mr. FUSANOSUKE KUHARA, President, Kuhara Mining Co.—Mr. K. TAKEDA, President, Great Japan Mining Co., Ltd. (Lower Row) Mr. H. FUJITA, Chairman of Board of Directors, Osaka Zinc Mining and Smelting Co., Ltd.—Mr. NAKASUKE SAKA, Managing Director, The Fujitagumi, Osaka.

it is the direct owner of 44 different mines, some of which are now being developed, while 13 are actually being successfully worked. Of these mines the Kosaka is the most famous. It produces gold, silver, copper, lead, zinc, and bismuth. The other mines well known by their names are: Hanaoka, Akitsu, Shikaku, Oarasawa, Unekura, Matsuoka, Tagonai, Ohmori, Obiye, Ohmidani, Hisaki, Somin, Antotsu, and Zuiko. The total value of the mineral products of the Fujita Company exceeds Yen 10,000,000 per annum, and the productive capacity of the mines is steadily increasing, the ratio of their output to the total mineral production of Japan standing very high. Of silver, the company produces 31 per cent of the total yield of Japan; of copper, 19 per cent, and of gold, 13 per cent. Special efforts have been made by the metallurgical experts of the company to supply many of the necessities, the lack of which was felt in Japan immediately foreign sources of supply were cut off by the war. Ferro-alloys is a case in point. These were always imported, but when the war came on the Fujita Company started to produce ferro-alloys of many kinds, the works at Hirota, in the Fukushima District, operated by hydro-electric power, being engaged in the work. So far the greater part of the company's output of ferro-alloys has been taken by the Imperial Army and Navy arsenals, and by various engineering works, though some alloys are exported to Russia, Australia, and the United States. The Osaka Zinc Mining & Smelting Co., Ltd., is a subsidiary company controlled by the Fujita Company, and is the pioneer of the spelter industry in Japan. This concern operates four smelting plants, and produces an enormous quantity of high-grade spelter and other metals, two-thirds of the production being available for export.

The Forestry Department of the Fujita Company is another very important enterprise, conducting work of largely a national character, embracing all businesses which ordinarily come within the purview of forestry management. The company's operations include deforestation and afforestation, activities not being confined alone to Japan, but extending wherever a suitable field for enterprise is located. Extensive forests, aggregating some 180,000 acres, are being worked in Hokkaido, which is famed for its oak. The Fujita Company is in a position to supply any orders for oak, ash, birch, tamo, pine, etc., both in logs and sawn. The Yawataya Saw Mill, which is regarded as one of the finest equipped lumber plants in the entire Orient, is operated by the Fujita Company. It is conveniently situated on the harbour front at Osaka, and apart from the usual equipment of such a mill, there are

flooring and box-making plants, together with dry-kilns of the latest type. The Nagakisawa Saw Mill, also owned by the Fujita Company, is in the northern part of Japan, in the Akita district, and not far from the famous Kosaka Mine, in the heart of the cedar-producing forest lands. The company has a large concession of cedar forest from the Government to supply the mill with logs. This mill produces about 30,000,000 B. M. feet per annum for the home market.

In the Malay Peninsula the Fujita Company has taken an important position in the rubber industry. The company's estate is situated at Kota Tinggi, in the State of Johore, about 30 miles up the river from Singapore, and covers some 6,000 acres. This property was acquired in 1910 and since then practically the whole of it has been planted. The first and second years' plantings are now yielding rubber, and when the whole comes into bearing the output is expected to be about 1,200 tons of crude rubber annually. It is also proposed to establish a rubber factory, either in Singapore or Kobé, in connection with the Fujita Company's Nam Heng Rubber Estate.

From this brief description of the enterprises controlled by the Fujita Company, it may be gathered how important are its operations, viewed from a Japanese national standpoint. The company holds the highest reputation for its progressive policy and the soundness of its business methods, and there is no question but that it is destined to play an even greater part in the further development of the natural resources, and the secondary industries of Japan, than it has played in the past.

Since the above article was written various important changes have been made which may briefly be summarised:

The Fujita Gumi, a private enterprise, as heretofore operates in mining, forestry, agriculture, and banking. The partners are Baron Heitaro Fujita, Tokujiro Fujita, Esq., and Hikosaburo Fujita, Esq.

The Fujita Mining Co., Ltd., with a nominal capital of Yen 30,000,000, of which 15,000,000 is paid up, is under the direction of T. Fujita, Esq., as President, and N. Saka, Esq., as Managing Director. The products, to a large extent exported, comprise gold, silver, electrolytic copper, electrolytic zinc, ferro-alloy, ferro-silicon, ferro-titanium, ferro-tungsten, ferro-manganese, ferro-molybdenum, and ferro-chrome. The mines operated are located at Kosaka, Obiye, Omori, Oarasawa Zuiho, and a number of other places in Japan proper, Korea, and Formosa.

The Fujita Bank, Ltd., a further distinct branch enterprise, with a nominal capital

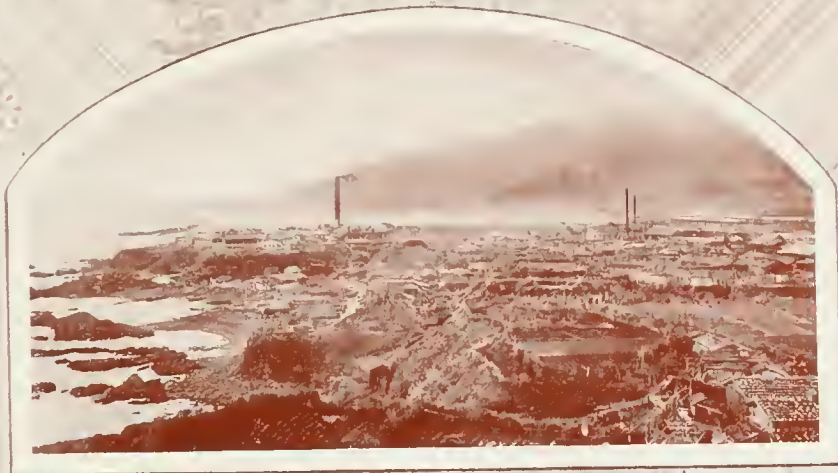
of Yen 10,000,000, Yen 5,000,000 paid up is under the direction of Baron H. Fujita as President and K. Suzuki, Esq., as Managing Director. The head office is, as will be seen from the accompanying illustration, located in very fine premises at 4-chome, Imabashi, Higashi-ku, Osaka. Branches are rapidly being opened throughout the country. Those at Tokyo, Kyoto, and other important centres will, of course, be operating ere this publication is issued. It may with safety be predicted that the expansion overseas will follow at no distant date.

GREAT JAPAN MINING CO., LIMITED

IN mining, as in all other industries, great progress has been witnessed in Japan, modern methods, and labour saving machinery, combined with the bold investment of a large amount of capital, and expert technical direction, having led to a large increase in the output from old mines, and the opening up of many new mineral areas. The greatest enterprise has been shown by such concerns as the Great Japan Mining Co., Ltd., the Mitsu Bishi Company, Furukawa & Co., and the Kuhara Mining Company, all of which are powerful corporations, having abundance of capital at their disposal, and working on the most improved methods to develop the mineral resources of Japan.

The Dai-Nippon Kogyo Kabushiki Kaisha, or Great Japan Mining Co., Ltd., has been in existence only two or three years, but it has accomplished a vast amount of useful and profitable work, particularly in the opening up on a proper scale of old mines, and in the development of new processes for the more effective extraction of gold, silver, and copper from base ores. This company was established in November, 1915, by Messrs. Kyosaku Takeda, Nobuo Tajima, and a small group of their business associates, the original capital being Yen 2,000,000. This sum was shortly afterwards increased to Yen 5,000,000, when it was seen that extensive work would have to be done in the provision of smelting works, refineries, and other establishments necessary for the handling of the large bodies of ore in sight in the company's mines. The company is working chiefly the following properties: Hassei Mine, situated at Hachimori Village, Yamamoto County, Akita Prefecture, producing gold, silver, and copper ore; Yoshino Mine, at Nishi-Naruse Village, Okachi County, Akita, producing gold, silver, copper, and lead ores; Kitomo Colliery, at Funagata Village, Mogami County, Yamagata Prefecture, producing lignite and a special coke or charcoal. In addition, the company is operating its own iron works at Saruyecho, Fukagawa-ku, Tokyo.

The areas under control comprise: Hassei



GREAT JAPAN MINING CO., LTD.: HASSEI MINE AND CENTRAL SMELTER—YOSHINO MINE, SHOWING THE CONCENTRATION PLANT
IN COURSE OF CONSTRUCTION (NOVEMBER, 1917)

Mine and subsidiary workings, 940,892 tsubo, of which 35,000 tsubo are being worked; Yoshino Mine, 10,261,676 tsubo, of which 90,000 tsubo are being worked; and Kitom Colliery, 8,695,632 tsubo, of which 25,000 tsubo are being worked. The various buildings, such as battery houses, concentration plants, smelters, refineries, etc., are constructed of stone, wood, or brick, and cover in all an area of 20,000 tsubo. There are installed with all the latest machinery for mining use, and, moreover, the company has a complete iron-working plant at its Tokyo factory, as well as wood-working machinery. Water power, steam and gas engines are employed for different purposes, according to the localities of the several plants. The technical and clerical staff comprises 210, and at the end of October, 1917, there were 4,480 workmen on the company's payroll, the amount disbursed in wages being about Yen 950,000 per annum. These figures will indicate the extent of the operations of the Great Japan Mining Co., Ltd.

Although the number of shares in the company is 100,000, at Yen 50 each, there is a comparatively small number of shareholders, consequently the policy of the concern is easily directed and there is the smoothest relationship between the directorate and the shareholders.

Hassei Mine possesses the largest silver ore bed in Japan. When it was known as the Tsubaki (Camelia) Silver Mine, a few years ago, it produced the largest output of silver in the country. The situation of the property is very convenient, being easily accessible both by sea and land. The site is an ideal one for a central smelter and refinery,

because there is no settlement to be damaged by smoke or fumes, but the nature of the silver ore being too silicic, refining has been greatly decreased, and the company does not attach much importance to the silver mining at this centre. The Yoshino Mine is pre-eminent for the extent of the ore body, which is perhaps the largest in Japan. It is estimated that there is about 1,500,000,000 *kwan* of payable ore in sight (1 *kwan* equals 8 $\frac{1}{3}$ lbs.), but exploratory work now in progress is expected to disclose a further 5,000,000,000 to 10,000,000,000, *kwan* of ore. The concentration of the ore is very simple, being carried out by what is known as the "flotation" process. In other ways the Yoshino Mine is a model of simplicity and automatic working, giving the most effective results at a minimum of cost. At present about 100 tons of ore are handled daily, which within a few months will be increased to 1,500 tons. The concentrates produced are noted for the large percentage of gold and silver which they contain. Under the present arrangement the ores and concentrates from the Yoshino and other mines are sent to the Hassei Mine, where the central smelter and the refinery are located and there they are smelted and refined, together with the silver and other ores from the Hassei. It is the intention of the company to begin the production of electrolytic copper at an early date, a new concentration plant being under construction at the Yoshino Mine, to be completed by March, 1918.

At the Kitomo Colliery a special charcoal factory is being erected for the production of a new kind of lignite charcoal, made by a distillation process. This product is known

as "new charcoal," produced under a special and recent invention. It is like charcoal in many respects, and is much cheaper than the latter, while possessing a higher calorific value. Ashes, which constitute a big defect in most coals, are very limited with the "new charcoal," and it is also deficient in phosphorus and sulphur. It is claimed to be an ideal fuel for making a special iron and steel, and can also be used for general industrial and household purposes. In the course of producing this coke there are by-products, such as tar, and also acetic and carbolic acids. To utilise these the company is now contemplating the installation of a plant to produce various chemical substances, and so to engage largely in the chemical industry.

The output of the various properties owned by the Great Japan Mining Co., Ltd., for the ten months ended October 31, 1917, were as follows: Gold, 2,304 *momme*, valued at Yen 11,520; silver, 1,536,000 *momme*, valued at Yen 307,200; copper, 3,000,000 *kin*, valued at Yen 1,740,000, or a total value of Yen 2,058,720, apart from the value of the coal and coke produced from the colliery. In 1918, it is estimated that the output will be increased as follows: Gold, 12,000 *momme*; silver, 6,600,000 *momme*, and copper 8,000,000 *kin* (120 *momme* equal 1 pound; 1 *kin* equals 1 $\frac{1}{3}$ pounds). In addition to its own output, the company purchases ores from other sources for treatment in its works.

The head office of the Great Japan Mining Co., Ltd., is at No. 6 Tameike-machi, Akasaka-ku, Tokyo. Mr. K. Takeda is the Chairman of Directors, and the following are also on the Board: Messrs. N. Tajima, M. Isobe, N. Namiki, and M. Mayekawa.



THE HISTORY OF OIL IN JAPAN

By A. P. SCOTT, Managing Director,
Rising Sun Petroleum Co., Ltd.

MORE than 1,200 years ago petroleum was known in Japan as "burning earth and burning water." In those ages these elements were considered as something spiritual, and were approached with awe and reverence. Then the insect-killing properties of petroleum were discovered, and about two hundred years ago petroleum began to be used for illuminating purposes in its crude and semi-crude state. But danger, smoke, and bad smell were inseparable, and as a result the use of it was confined to the poor people of the producing districts.

When Japan was opened for foreign trade some sixty years ago, refined petroleum began to be imported from America in small quantities by Chinese merchants of Nagasaki as one of the Western novelties. Such importations at Nagasaki were: 8 cases in 1869; 70 in 1870; 417 in 1871; 3,530 in 1872.

In this early period only the progressive upper-class made use of the refined product. Of its value as a novelty of the Western world the following anecdote, told by the Japanese, affords a good illustration: In 1869 a number of young men wished to find an occasion of showing their gratitude towards their English master, an official translator of the Department of Foreign Affairs, recently returned from Europe, who gave them English lessons free of charge. They raised a subscription and bought a present that was handed to the wife of the official. It consisted of a lamp stand and half a dozen black bottles, each having a label printed in English. The master coming home saw the present, took up a bottle, read the label and said: "This is Triangle Brand Bass Ale, a precious liquor that is brewed in England from wheat. Happy am I to taste the long forgotten drink." Thus speaking to his wife he poured it in a glass, and as soon as he gulped it down he vomited and gurgled in a very excited and confused manner. It was not beer, as he expected, but kerosene! The colour of early imported kerosene was not the water white of the present day, and it was sold in old beer bottles. The wholesale price was about Yen 40 per case. Later it came down to \$2.60 Mexican silver

Until 1893, when the Standard Oil Company began direct sales in Japan, the import trade had been very speculative. The customary transaction was to buy forward from importers. Sailing vessels usually left the Atlantic coast during the months of February and March and took six to seven months before they arrived in Japan. Forward sales



A BIG GUSHER BROUGHT IN BY THE NIPPON OIL COMPANY

contracts were chiefly made in May, June, and July. The buyer had to bear the risk of fluctuation of price during from two to six months. The matter was made worse by violent and frequent fluctuation of the ex-

change rate of the Mexican dollar. Thus, a kerosene merchant was regarded as a speculator rather than a sound business man.

In 1887 Russian oil was imported to Japan by Samuel Samuel & Co., and for a time it

occupied an important position in the Japanese oil trade.

Meanwhile the native oil industry was in a struggling state. Production of native crude was: 24,000 koku in 1879, and 39,000 koku in 1888. The oil wells were dug by hand and the deepest one was not more than 600 feet. By the year 1889 there existed four or five refineries in the oil-producing centres of Echigo, but these being the undertakings of private individuals were necessarily on a small scale and imperfectly equipped. The total output of refined petroleum of the same year was 4,511 koku, against an import of 28,500,000 gallons. About this time several oil wells of the Amase field succeeded, and this place attracted the attention of the Echigo people. Stimulated by the activity of the Amase field, Messrs. G. Yamaguchi, S. Homura, H. Naito, and other prominent men of Echigo promoted a company in 1889, with a subscribed capital of Yen 150,000. Mr. Naito was elected the Managing Director of the new company. During a dinner given to celebrate the organisation of the company a bat entered the room. They interpreted this as a good omen because the Chinese character of "bat" is pronounced the same as that of "happy fortune," so they adopted "Bat" as their trade-mark.

In the year 1887 Mr. Yamada, Ex-President of the Hohden Oil Company, first engaged in the oil-well trade. In 1890 the Nippon Oil Company imported drilling machines from America, and these proved a success. In 1891 there were 430 companies doing oil business, with a capital invested amounting to Yen 5,535,300. In 1893 the Hohden Oil Company was organised by Mr. M. Yamada and others, with a subscribed capital of Yen 15,000, and an oil field of 4,000 tsubo. This company was very well managed and was lucky in striking oil, and was so prosperous that business rapidly expanded. Within seven years their capital had been increased to Yen 600,000, and they purchased fifteen companies and partnerships. Ever since, amalgamation of smaller companies has been characteristic of the policy of the Hohden Oil Company.

As stated elsewhere, up to 1893 the Standard Oil Company had no direct selling organisation in the country. American oil was imported by the Japan and China Trading Co., Smith-Baker, Brown & Co., Jardine, Matheson Co., the Mitsui Bussan Kaisha, etc. In this year the Standard Oil Company opened their Japan branch headquarters at Yokohama, and branch offices at Kobé and Nagasaki.

Against the selling organisation of the Standard Oil Company Mr. Asano, the sole buyer of Russian oil for Nagoya and the

northeast, organised a Guild in Tokyo, and his operations through this medium were so successful that from the start 100,000 units were sold monthly, and this increased to over 180,000 units. Later this Guild was dissolved, and Mr. Asano opened branch selling offices in many up-country towns to deal direct with local buyers.

From January 1, 1899, the new tariff law took effect. Kerosene was to be charged 1 sen per gallon bulk and 1.6 sen packed in tins. Before this, though there was a rate fixed for import duty of kerosene, it was not enforced over foreigners because they were hidden behind the wall of extraterritoriality.

By the year 1900 the Echigo fields were very flourishing, and both Samuel Samuel & Co. and the Standard Oil Company began to consider seriously the advisability of exploiting Japanese oilfields. The former, after careful examination of the fields, abandoned the idea, while the Standard Oil Company had not much confidence in them, yet they saw that the oil-indicating area was vast and that if these fields really produced oil under the direction of native enterprise, their own strong position in the Oriental countries might be seriously affected. They therefore decided to take the risk of entering Japan as producers, and in November, 1900, the International Oil Company, a branch of the Standard Oil Company, was formed with a capital of Yen 10,000,000. Such a gigantic enterprise by foreigners inspired awe and suspicion among the natives.

The same year the International Oil Company began the exploitation of the Hokkaido oilfield. The existence of mineral oil in Hokkaido has been known since long before the Restoration. First it was sold as a cure for skin diseases, and very much later as an illuminant. Several attempts on a small scale by Japanese in Hokkaido had ended without any good result.

However, this attempt of the International Oil Company stimulated native enterprise. Oil rights at the end of 1899 were 1,640,000 tsubo, which suddenly increased to 101,970,000 tsubo by the end of 1900, besides 148,950,000 tsubo then pending application.

The year 1900 is also a memorable one, because the import of Russian oil, which had regularly appeared in the Japanese market since 1887, ended this year, and Samuel Samuel & Co. substituted Borneo oil for it. The tank steamer *Strombus* arrived at Yokohama in October with the first consignment of 1,500 tons of Borneo oil. At first sales of the new oil met with competition, but it soon found its way into the market in spite of it. The second consignment of 3,500 tons, per tank steamer *Clam*, followed immediately.

The import of kerosene in this year (1900) was as follows: American oil, 48,472,229 gallons; Russian oil, 13,904,266 gallons; Borneo oil, 5,465,829 gallons.

By this time Mr. Asano had opened his selling offices in more than forty towns, well spread over his selling area. This was to protect his oil business against possible attack from the Standard Oil Company.

The native oils up to this period (1900) were mostly sold in Echigo Province, and in Tokyo and the western provinces they were in demand only for mixing with American oil. In order to raise the standing of Echigo oil it was necessary to standardise the products, and thus a large refinery was established in Nagaoka in 1900 with a capital of Yen 500,000, under the name of the Nagaoka Refinery Company. In this year the Nippon Oil Company commenced sales of lamp oil in Tokyo.

Up to this time the holding of an oilfield right was charged with no royalty until the field was actually worked. This resulted in the holding of vast fields by mere adventurers, shutting out earnest industrial people. Though the opinion of the Government met with opposition from miners on the ground that the Japanese oil industry still needed contributions from adventurous prospectors, it was decided in 1901 to charge 10 sen per 1,000 tsubo per year on holding rights of oilfields.

In this year a law to increase the import duty on kerosene was passed, and the rate was doubled, *i. e.*, bulk kerosene rose from 1 sen per gallon to 2 sen, and in tins from 1.6 sen to 3.2 rin per gallon. By this charge an increase of revenue of Yen 850,000 was expected.

In 1902 the Hohden Oil Company successfully effected the amalgamation of thirty companies, and among the companies thus amalgamated were several pipe line companies and refineries. They increased their capital from Yen 650,000 to Yen 1,500,000. Up to this time the products of the Hohden Oil Company were sold through the Oil Department of Mr. Asano, but the expansion of the company by amalgamation necessitated a modification of the sales system, and a partnership called Hosen Shokai was organised with a capital of Yen 350,000.

In this year the Nippon Sekiyu Kaisha increased their capital to Yen 2,400,000. This company first started with a capital of Yen 150,000, then increased to Yen 600,000 in 1894, and to Yen 1,200,000 in 1900. According to statistics taken by the Nagaoka Miners' Association, there were fifty-two companies, with a capital of Yen 33,180,000, at the end of 1902, as against fifty-eight companies, with a capital of Yen 4,900,710, five years previously.

At this time the Niitsu field suddenly became active. The new demand for liquid fuel was created, and the Niitsu crude was the cheapest for the purpose. Up to 1900 it had been 65 sen per koku. Also, the wells were shallow, the average depth being about 600 feet. At the end of June, 1902, there were 101 wells with an average daily output of 704 koku. The price of Niitsu crude ranged from Yen 1.00 to Yen 1.60 per koku.

shares, owing to general depression of trade and industry by the Russo-Japanese War.

In this year the Native Oil Selling Company was organised with a capital of Yen 500,000. The whole products of the Nippon and the Hohden were to be sold through this organisation, the Bat and the Jewel being the chief brands.

In 1905 the Mining Law was revised and foreigners were given mining rights, provided

solved. Thus a big selling competition was generally anticipated, but it only brought about competition for improvements of merchandise.

In 1907 the International Oil Company was sold to the Nippon Oil Company for Yen 1,750,000. The failure of this company is ascribed to difficulty arising out of the difference of feelings and customs between America and Japan. From the beginning of



SCENE IN KABAKEI VALLEY, KYUSHU

By the middle of the following year the daily output of crude increased to 1,210 koku, and the price also advanced to Yen 2.30 per koku.

The Standard Oil Company planned to import kerosene in bulk. This was advantageous because the import duty of bulk oil was 20 sen per unit of 10 gallons, while kerosene in tins was charged 32 sen. But this idea was abandoned as a consequence of the revision of the tariff, and the import duty of both bulk oil and in tins was made the same, *i. e.*, 32 sen per unit of 10 gallons.

Up to this time the grading of kerosene was: American oil first, Russian oil second, and native oil third, but from October of this year the positions of Russian and native oil were reversed. The anti-Russian feeling just before the Russo-Japanese War brought about this change. In Osaka a placard was shown warning the public to stop using Russian oil, with the penalty of one's house being burnt down.

In 1904 the Hohden Oil Company effected another amalgamation and purchased nineteen companies. This work was made easy in consequence of a great depreciation of

they formed their companies under Japanese laws.

In this year the Government Railway Bureau laid a pipe line near Karuizawa, between Yokogawa and Usui, in order to remedy the insufficient carrying capacity of the train carrying service.

In 1905 the Namboku Oil Company was organised with a subscribed capital of Yen 1,500,000. Among the promoters, Messrs. Okura, Yamada, Watanabe, Murai, and Asano were prominent.

The Nippon Oil Company, taking advantage of the prosperity of the share market after the war, increased their capital from Yen 2,400,000 to Yen 5,000,000, and the Hohden Oil Company effected a third amalgamation of twenty-six oil companies.

In August, 1906, Mr. Asano's selling contract with Samuel Samuel & Co. expired, and since then sales northwest of Gifu, including Hokurokudo, have been made by the importers direct. In the following month the Native Oil Selling Company, the combined selling organisations of the Nippon Oil Company and the Hohden Oil Company, dis-

solved. Thus a big selling competition was generally anticipated, but it only brought about competition for improvements of merchandise. In connection with this question the Standard Oil Company headquarters in America sent their Engineer, Mr. Carter, to Japan. Upon investigation of the Echigo oilfields he saw that only shallow strata had been exploited, and he had good hopes of them for deeper boring with better and larger plants. This opinion of Mr. Carter's unfortunately did not meet with the approval of Mr. Copman, the Manager of the Standard Oil Company's Japan Branch, and American Headquarters. Under such circumstances it is the usual policy of the Standard Oil Company to carry home all tools, machinery, etc., so that these may not be utilised by their competitors. But the case of the International Oil Company in Japan was an exception. Mr. Dunn, the Naoetsu Manager of the International Oil Company and ex-American Minister for Japan, was well disposed towards the Japanese nation, and he advocated transferring

the undertaking to able Japanese successors. Mr. Copman was of the same opinion, and the whole property, excepting that in Hokkaido, was transferred for Yen 1,750,000. In the field there were 70 oil-producing wells with 280 koku daily output of oil, and one well with 1,300,000 cubic feet of gas.

In 1903 there was a great controversy in regard to import duty on crude oil. After several revisions kerosene, both bulk and in tins, was charged 38 sen per 10 gallons. Added to this another 38 sen was charged as war duty, and this latter was increased to 58 sen from June 1, 1905. The war tax was continued after the war, and from April 1, 1906, kerosene import duty was made 96 sen per 10 gallons.

The import duty in 1906 relating to petroleum was as follows: Mineral Oil (excepting crude oil)—

1. Light Oil (Benzine) below 0.730 of s. g. @ 15° C., 20 per cent *ad valorem*.

2. Lamp Oil, not exceeding 0.875 of s. g. @ 15° C., 96 sen per 10 gals.

3. Heavy Oil, over 0.875 s. g. @ 15° C., Yen 1.23 per 100 kin.

Thus there was no rate fixed for crude oil, because no crude oil had been imported into Japan, and it was the intention of the Government to include crude oil in the category of "Oil, grease, and wax," and charge 20 per cent *ad valorem*. If so, it was obvious that the export of lamp oil would be substituted for crude oil. This meant a decrease of revenue and it was thought that the native oil industry would be threatened. In 1907 the bill relating to import duty of crude oil was presented to the Diet by the Government. There were two divisions of opinion. One, represented by Mr. Asano, insisted upon reducing crude oil import duty, while the other strongly advocated raising it to a level equivalent to that of illuminating oil. Mr. Naito was the champion of the latter group. Finally the original bill was a little modified and the new duty was put into effect from April 1, 1909.

MINERAL OIL

1. Crude Oil. Percentage of liquid distilled at a temperature from 120°C. to 275°C. by fraction distillation against original crude.

(A) Not exceeding 20 per cent duty, .17 sen per 10 gallons.

(B) Not exceeding 25 per cent duty, .21 sen per 10 gallons.

(C) Not exceeding 30 per cent duty, .25 sen per 10 gallons.

(D) Not exceeding 35 per cent duty, .29 sen per 10 gallons.

(E) Not exceeding 40 per cent duty, .33 sen per 10 gallons.

(F) Others. Duty, .36 sen per 10 gallons.

2. Other Mineral Oils. Gravity at 15°C.

(A) Not exceeding .730,* duty, 20 per cent *ad valorem*.

(B) Not exceeding .875, duty, .96 sen per 10 gallons.

(C) Others. Duty, Yen 1.23 per 100 kin.

The origin of the controversy and agitation over the crude oil import duty is ascribed to Mr. Asano's ambition to monopolise the oil business in the East. As the first step towards this realisation he made a contract with the Graciosa Oil Company of California, and two other oil companies, to buy crude oil, and at the same time he secured a site at Maiko (near Kobé) and secured a lease of land at Dalny from the Government. Then he increased the capital of the Namboku Oil Company (established in 1905, capital Yen 1,500,000) to Yen 3,000,000, and amalgamated the Tozai Oil Company (established in 1906, capital Yen 1,500,000). The Namboku erected a large refinery at Hodo-gaya and tank storage installation at Hirakuma in 1908, and the crude oil imported by Mr. Asano was sold to the Namboku at a small profit. Thus it was very important for Mr. Asano to keep the import duty of crude oil at the lowest possible rate. However, in spite of his efforts, the Graciosa and the two other Californian oil companies were bought up by the Standard Oil Company, and Mr. Asano's plan became impossible.

While the crude oil duty controversy was being hotly discussed, the Miyasawa Oilfield began boring and found new gushers. The Nippon Kaisha struck eight wells, getting 850 koku per day, and the Hohden struck four wells, getting 420 koku per day.

In 1908 the Nippon Oil Company struck oil at a depth of 360 feet near Akita, and got over 10 koku per day. This was the first well of any significance in the Akita district. It was known from early times that oil existed underground in the Akita district, and from the Second Year of Meiji (1869) there had been several attempts to get at it, but these had ended without any satisfactory results. With the trial success of the Nippon Oil Company, oil people began putting some hope in the Akita fields. In 1910 the Nippon Oil Company built a refinery at Tsuchizaki to refine Akita crude. In 1908 the Namboku struck a good well at Byoritsu in Formosa, and in the same year the Nippon Oil Company bought oil rights in southern Formosa.

The Rising Sun Petroleum Co., Ltd., a concern which had taken over a large number of Mr. Asano's up-country depots and built up a detailed up-country organisation, bought a large tract of land at Saitozaki, near Hakata,

* Benzine. This was revised to 50 sen per 10 gallons in 1910.

in 1908, and began constructing a refinery with a view to refining Borneo and Sumatra oil to provide for Japan, Korea, and Manchuria. The equipment of the refinery was as follows:

| | |
|---|---------------------------|
| 2 | 4,000-ton crude tanks |
| 3 | 1,500- " kerosene tanks |
| 2 | 200- " benzine tanks |
| 3 | 60- " agitators |
| 2 | 500- " silting tanks |
| 9 | 100- " receiving tanks |
| 3 | 12- " liquid fuel tanks |
| 6 | 100- " distilling boilers |

Two tin-shops (capacity, 8,000 pieces per day), godowns, condensing house, electric generating house, laboratory, pumping house, filling shed, living quarters, and railway connection to the Hakata Railway Company's line.

It was so arranged that a 6,000-ton tanker could discharge its whole bulk oil cargo at a point 600 feet from the shore through an 8-inch pipe within 20 hours. The work was completed in July, 1909, and refining commenced in September.

In 1908 the Namboku Oil Company was finally amalgamated into the Hohden Oil Company.

In April, 1908, the Standard Oil Company commenced sales of Tiger Brand oil in bulk. In January, 1909, the native companies entered into a price agreement with the importing companies, and strengthened market prices. The foreign companies also raised prices and the market seemed to improve. This lasted but a very short time, and before long there was keen competition among the various parties, each endeavouring to make full use of their new facilities.

The native oil people endeavoured to stop competition and to form a sales conference, and an arrangement was made in February, 1910, by which the two native companies were to supply 35 per cent and the two foreign companies 65 per cent of the total lamp oil. The total consumption was then estimated at 10,000,000 c/s

| | | |
|-----------------------------|--------------------------|-----------|
| Hohden..... | Echigo..... | 1,520,000 |
| " | from imported crude..... | 600,000 |
| Nippon..... | | 1,380,000 |
| S. O. C. & R. S. P. Co..... | | 6,500,000 |

Total.....10,000,000

The arrangement worked for about six months, but in September a period of unprecedentedly keen competition set in. The effect of this competition on the native oil industry was so disastrous that the Government contemplated taking some steps to stop it. However, the competition slackened by the end of December, and in August, 1911, they entered into a state of truce.

As far as production went, it was in 1910 that there were several gushings at Garameki, Niitsu district, the largest of which put out 1,360 koku per day, which at the time was the record.

In 1911 the desirability of amalgamation of the Nippon and the Hohden was loudly discussed. After the purchase of the International Oil Company by the former these two oil companies almost equally shared nearly the total native production; other people were too small to be considered. There were obvious evils under such circumstances in the existence of two companies. They competed with each other in sales, and there was useless competition in drilling. The controversy of amalgamation *versus* non-amalgamation had increased its zeal after the severe blow received by the native companies from the oil war of the previous year. The chief point of the amalgamist is that, the two companies' oilfields lying side by side in almost every district, a success on the part of one company in boring a well results in a competitive drilling along the boundary by the two companies, thus wasting energy and capital uselessly. The contending argument is that the development of the oil industry is chiefly due to competition, and more or less waste of labour is worth sacrificing. The amalgamation will result in the monopoly of the native oil business on the one hand, and will tend to check technical development. Much importance was attached to the question by the intervention of Baron Goto, then the Chief of the Government Railway Bureau, who advised the companies concerned to amalgamate. The directors seriously considered the question and met several times, but failed to agree on any definite action.

Meanwhile deep drilling at Imo field, in the Nishiyama district, proceeded successfully. Previous attempts in this oil field have failed, and the mining right was transferred to the International Oil Company, which in May, 1906, erected a big two-story derrick, 84 feet high, for deep drilling, and in May, 1907, struck the oil bed at a depth of 2,219 feet, with a production of 45 koku of crude per day. Three or four years passed without any further attempts, and after the right was transferred to the Nippon Oil Company, deep drilling was again commenced, in 1909. In 1910 there were several wells struck in an oil bed, at a depth of about 2,500 feet, the wells putting out some 50 koku per day. In 1911 success was more brilliant. The biggest gusher put out 120 koku per day, and the deepest well reached a depth of 3,180 feet. Deep drilling at 2,500 to 3,000 feet with rope was a rather difficult feat, and the success at Imo field

must be considered a remarkable achievement of the art of drilling. The average length of time required to drill such a deep well was about a year. In this year (1911) the Nippon Oil Company purchased the whole of the International's Hokkaido business, comprising forty-one mining rights covering an area of over 600,000 tsubo, with seven oil-producing wells (daily output, 170 koku), 54,000 tsubo of land, some buildings, seven tanks (two of 4,000 tons, two of 1,000 tons, two of 400 tons, one of 200 tons), 60,000 feet of pipeline, and drilling machines and tools.

By this time the total production of crude had decreased to 1,550,000 koku per year as against 1,830,000 koku three years before, and the future of the Japanese oil industry was viewed with pessimism. The cause of the decrease of production was that the shallow wells were gradually dying out, and deep well drilling takes a long time and is accompanied by many difficulties. However, the importation of a new and powerful rotary drilling machine by the Nippon Oil Company, from America, with four mechanics, threw new life into the Echigo oilfields. The efficiency of the new rotary machine was so great that it drilled from 120 feet to 180 feet, per day of 24 hours, in the Nishiyama fields, and only two or three months were required to drill a well that would need one or two years' drilling by the rope system. One well drilled 3,300 feet in only 80 days, and struck oil! The first rotary drilled well of 2,880 feet was commenced on April 5th and completed on June 23rd, and gushed 100 koku per day. Encouraged by these successes, the Nippon Sekiyu Kaisha installed rotary machines at Kamada, Takiya, Nagamini, Gochi, and Niitsu, and these met with good results. Then the Hohden followed the example, and ordered rotary machines from America. The new machine was installed at Iriwada field, in Nishiyama district. Mr. Ogura bought one and used it at Kamata. Then many others began to use the rotary machine. Not only did the new machine do wonderful service itself, but it served as a stimulus to the old rope system, and the latter was much improved, and increased its efficiency. The continued prosperity of the Nippon Sekiyu Kaisha decided them to increase their capital from Yen 10,000,000 to Yen 20,000,000.

In September, 1912, No. 71 rotary drilled a well at Imo field, and at a depth of 443 feet struck oil, which gushed out at a rate of 600 koku per day. About the same time another rotary well at Kamada struck gas and blew out 6,000,000 cubic feet of gas per day. These two wells, one oil and the other gas, were then the biggest on record in Japan. The total production of crude

oil in 1913 increased to 1,750,000, as against 1,470,000 koku in 1912.

In this year the Nippon Oil Company erected a refinery at Garugawa, Hokkaido.

One of the most remarkable occurrences in the annals of Japanese oil history is that the Nippon Company's No. 5 rotary well at Kurokawa field, Akita district, struck an extraordinarily big oil deposit. The well began gushing at midnight on May 25, 1914. By the test made at nine in the morning it gushed at a rate of nine koku per minute, or 12,960 koku per 24 hours. This Kurokawa field is at a distance of four rin from Akita town, and dating from very ancient times there have been oil indications. Crude oozed out of the ground and floated on top of the stream—perhaps this is why the place is called Kurokawa, or "Black Stream."

The news of the gushing spread all over the country at once and caused a sensation. Everybody rushed to buy shares in the Nippon Oil Company, and prices advanced by Yen 22 per share in one day! The confusion in the Tokyo stock exchange market became so uncontrollable that they were obliged to suspend transactions temporarily.

The Nippon Oil Company had good luck at the Kurokawa oilfields. There were few wells that failed. After the great gushing of No. 5 well, the No. 8 was the next largest, putting out 5,000 koku per twenty-four hours.

The question of the Japanese oil companies has been dealt with at some length because, under present conditions of a decreasing consumption, the native production naturally remains the keynote to the oil market of Japan. The operations of the importing companies, the Rising Sun Petroleum Co., Ltd., and the Standard Oil Company, have been touched upon briefly, as, while they both have detailed organisations, the sphere of their activities is, of course, affected by the decreased consumption and increased production of the country.

In addition to the kerosene trade, there are the benzine or gasoline, and wax markets. The Rising Sun Petroleum Co. imports in bulk the well known Shell Brand of motor spirit, and does a large business in it. The Standard Oil Company sells a certain amount of naphtha, and the production of the native benzine has shown considerable increase, though it seems that about the highwater mark of this production has been reached, unless the quantity of kerosene taken from the crude is considerably reduced.

Both the Rising Sun Petroleum Co. and the Standard Oil Company sell large quantities of wax and wax in the form of candles—the former concern making a special feature of the candle trade. It possesses candle



NIPPON OIL CO., LTD., TOKYO: THE REFINERY AT KASHIWAZAKI — OIL WELLS ON NAGAMINE LEASE, NISHIYAMA OILFIELD

factories of its own, and has done much to raise the standard of this particular form of illuminant. The native companies have, up to the present, done but little in the way of producing wax, although wax plants have been installed. There is also a considerable business in matchwax done by the importing companies.

The lubricating oil business—an important branch of the trade—was until recently largely in the hands of the Standard Oil Company, and Vacuum Oil Co., but here, too, the native production has shown a large increase and the importers have suffered accordingly.

In conclusion, the figures of production of crude oil in Japan for the past three years may be given, the information being that compiled by the Nagaoka Chamber of Commerce, which is the most actively interested public body, so far as the petroleum industry is concerned. The output for 1915 was 2,653,511 koku, or approximately 106,150,000 gallons. That for 1916 was 2,648,284 koku, or 105,940,000 gallons. It is reliably estimated that in 1917 the output decreased to 2,300,000 koku, a falling off of 300,000 koku. This decrease is attributable to the "petering out" of certain wells, and the failure to make big strikes during the year to offset the exhaustion of the older wells.

However, if we take the annual production of crude oil in Japan at 100,000,000 gallons per annum, valued at from Yen 4 to Yen 5 per unit of ten gallons, in the open market it will be seen that the industry is an exceedingly valuable one.

THE NIPPON OIL COMPANY, LIMITED

THE existence of petroleum in Japan was known very early in the history of the country, and it is recorded in the ancient annals that in 668 A. D. the people of Echigo paid homage to the court of Emperor Tenchi, offering a marvellous liquid called *Moyuru mizu*, or "inflammable water," which must evidently have been the natural oil. The first efforts to work the oil beds were made three hundred years ago when wells were sunk at Echigo, but the commercial history of the industry dates back no farther than the early part of the Meiji era, when the Japanese found the newly imported kerosene to be a refined product of the petroleum oil they knew to exist in their own country. This knowledge led to attempts of a crude nature to sink wells for, and refine, the oil at Echigo. A small seaside town, called Amaze, on the coast of Echigo, became the centre of this industry and many wells were sunk, with fair results. Anticipating large returns, attempts were made to drill with American apparatus, but owing to want of

proper technical knowledge and other difficulties, the initial effort to develop Japan's oil resources with modern plant was a complete failure.

The honour of being the first successful driller for oil was reserved for the Nippon Oil Company, Ltd., the pioneer and the largest of the Japanese oil companies. This concern was organised in the Spring of 1888, with a capital of Yen 150,000, and, unlike other companies then existing the Nippon had on its board of directors only men of the highest social and financial standing, including Mr. Hisashiro Naito, the President, the most prominent man in Echigo and a leading spirit in the Japanese oil industry. This company started its operations by digging several wells on one of the holdings secured in Amaze, and though these wells were a payable proposition and placed Mr. Naito and his associates on a good footing from the start, the first move by which they were able to lay a secure foundation for success was their introduction of American methods of drilling. A complete set of drilling plant and an expert driller were brought to Japan in the Fall of 1890. A derrick was rigged over one of the old holes at Amaze, and drilling was started in December of the same year. The well was completed in the following April, a depth of 1,000 feet being reached, and the bore producing 40 koku (1 koku equals 39.70 gallons) a day of very fine oil, having a gravity of 42 deg. Be. Thus encouraged, the Nippon Oil Company drilled several wells in succession, and struck oil in all of them at depths varying from 1,200 to 1,500 feet, producing from 80 to 180 koku a day. This decided success opened a new era in the history of the Japanese oil industry, and led to the rapid development of Amaze, and other fields as well, not alone by the Nippon but by other companies also.

It was then that the Nippon Oil Company showed itself the leader in the newly developed industry, its name being associated with every progressive step. President Naito himself visited the United States in 1891, taking with him Messrs. Hirose and Takano, the superintendents respectively of the producing and refining departments. Further visits were made periodically, and always the Nippon Company kept abreast of the times, importing the best plant, and introducing the latest methods for working the oil fields and treating the rapidly growing output. Later on, in 1900, Mr. Sasamura, the Superintendent of the Niigata Iron Works (owned by the Nippon Oil Co., Ltd.), was sent abroad to make a thorough study of the process of manufacturing oil drilling apparatus and refining machinery, and on his return the entire plant of the company was

enlarged, and the Niigata Iron Works began the manufacture of drilling and refining apparatus, thus enabling Japanese oil companies to purchase these essentials much cheaper than they had been able to import them. In 1907 the International Oil Company, a subsidiary of the Standard Oil Company, sold out to the Nippon Company its entire property in the Echigo district. This was a valuable acquisition of developed and undeveloped holdings, the most modern and best equipped refinery in the country, as well as pipe lines, tank cars and other plant, and a large number of operatives who had had the best of training under American technical experts. This record of progress and development has been well maintained by the Nippon Oil Co., Ltd. Within the past few years the company has introduced the American rotary drilling and the Russian system of continuous distillation, as well as installing gasoline and wax plants, in all of which great success has been realised. In May, 1914, the Nippon brought in a record-breaking gusher in Kurokawa lease, Akita Prefecture, initially producing 10,000 barrels a day. Since then several gushers, not quite so large, have come in, changing the entire situation of the Japanese oil industry. In order to meet the requirements of its enormously expanded business, the Nippon Oil Co., Ltd., increased its capital in 1913 to Yen 20,000,000, and removed its headquarters to Tokyo the following year, taking up offices at 21 Mitsubishi Building, Yurakucho, Kojimachi-ku. The extent and stability of the Nippon Oil Co., Ltd., may be gathered from the following financial facts taken from the balance sheet for the half-year ended June 30, 1917. The net profits for the half-year were Yen 3,219,223, and the balance brought forward from the previous period (Yen 1,360,062) brought the gross profits up to Yen 4,580,185. From this, Yen 500,000 was set aside against depreciation of the company's property and plant, and the balance was distributed as follows: Added to reserves, Yen 135,961; bonuses for officers and employees, Yen 163,153; pension reserves, Yen 27,000; commemoration allowances, Yen 403,813; dividends at 20 per cent per annum, Yen 1,650,000; balance carried forward, Yen 1,700,258.

THE HOHDEN SEKIYU KABUSHIKI KAISHA

THE rapid development of the petroleum industry of Japan is largely due to the enterprise and business courage of one or two companies, foremost among which is the Hohden Sekiyu Kabushiki Kaisha, or the Hohden Oil Company, Ltd. This com-



GENERAL VIEWS OF OILFIELDS OF THE HOHDEN OIL CO., LTD.

pany is one of the largest industrial concerns in the country, its authorised capital being Yen 20,000,000, of which Yen 16,250,000 is paid up. In 1893, when the Hohden Oil Company was established at Nagaoka, in the Niigata Prefecture, with a modest capital of Yen 15,000, the oil industry of Japan was still undeveloped, and what prospecting or boring was done was mostly conducted by small concerns directed by enterprising speculators. The future of the industry was doubtful and certainly appeared to be fraught with many dangers, the whole business being considered a doubtful speculation. The founders of the Hohden Oil Company realised the situation, and aimed to stabilize the industry to make its future certain. To this end they sought to combine all the small companies which had been started by adventurous capitalists, and they were successful in bringing about an amalgamation that placed the development of the industry on a firm foundation. The company at once embarked on a vigorous policy and brought about a healthy development in the oil resources of Japan. Its capital was several times enlarged, and now its prosperity and the scope of its activities are quite striking, while the services it has rendered to the Empire in promoting a valuable industry are equally well recognised. At present the affairs of the company are divided into five departments; *viz.*, working of the oil fields, refining of oil, sale of the products, accountancy, and general affairs. The system of working the fields is most modern, the latest appliances being employed, and every method science has so far devised for this particular branch of the industry, is adopted. The activity of the exploitation department, and the great confidence which the company enjoys with the authorities, is strikingly demonstrated by the area of the concessions obtained. The company has constantly carried on investigations into the geological features of every nook and corner of the Empire to find oil veins, and even now its capable experts are at work in different districts thought likely to produce oil. The area of the concessions held in the main islands and in Taiwan (Formosa) is over 586,000,000 square yards. At the oilfields actually being worked, *viz.*, at Higashiyama, Nishiyama, Niitsu, Maki, Sagara, and Taiwan, branch offices are established, and connected with these fields and directed from them, 16 works are in operation. For the actual working of the fields, over 200 boilers, 700 engines, and 300 pumps are operated to the fullest capacity. For the sinking of wells the company principally utilises the American mechanical boring system, though at some

| DISTRICT | AREA BEING WORKED (SQUARE YARDS) | AREA BEING PROSPECTED (SQUARE YARDS) |
|--------------------|--|--|
| Niigata..... | 58,459,959 | 179,909,143 |
| Akita..... | 1,247,957 | 86,996,367 |
| Aomori..... | 1,197,769 | 6,957,818 |
| Shizuoka..... | 262,992 | 13,031,790 |
| Hokkaido..... | 22,405,420 | 93,876,591 |
| Taiwan..... | 1,078,971 | ..... |
| Yamagata..... | ..... | 96,826,107 |
| Nagano..... | ..... | 1,109,089 |
| <i>Total</i> | 108,137,459 | 477,806,995 |

fields the old-fashioned methods are still resorted to. At present over 1,500 wells have been sunk, and up to the end of 1916 the annual combined output was estimated at 1,100,000 barrels in round figures.

The second department of the company owns refineries at Nagaoka, Niitsu, Nuttari, Niigata, Kashiwazaki, and Taiwan, their capacity being so large as to turn out 100,000 gallons of refined oil a day. At all these refineries the most up-to-date plant is installed, and under highly competent supervision the best possible goods are produced. In the open market the Hohden Company's products are received with favour and it is generally said that they are equal in every respect to the imported goods. The receptacles for the perfected products are also turned out by the company itself with every possible care and precaution, at its factories at Kashiwazaki, Nagaoka, and Niitsu. The average monthly production at these factories is 400,000 cans. The principal of the company's products are as follows: volatile oil gasoline, illuminating oil kerosene, vistral oil, lubricating oil, heavy oils residue, anti-insect oil, and paraffin pitch. The company's sales department has offices at Tokyo, Osaka, Shimonoseki, and Otaru. Thanks to the efforts which the company has made in the oil industry, and to the superior quality of its products, the Hohden lines have been advertised to the public, and now their reputation is well established. The Imperial Army, the Imperial Navy, and other Government Departments, as well as a large number of the largest private concerns, are numbered among the buyers of the Hohden Company's products. The officers of the company are as follows: President, Mr. Keizaburo Hashimoto; Managing Director, Mr. Kinezo Fukushima; Directors, Messrs. Tokichi Watanabe, Kwan-ichi Nakano, Sataro Kawakami, Tokujiro Kakitomi, and Shintaro Ohashi; Auditors, Viscount Tadaatsu Makino, and Messrs. Kichibei Murai and Zensaku Shibuya.

The above shows the various localities and total areas of the concessions held by the Hohden Oil Company, Ltd.

STANDARD OIL COMPANY OF NEW YORK

It is not surprising to find such a world-renowned organisation as the Standard Oil Company of New York so strongly represented in Japan. The company's first active operations in the Far East date back only twenty-seven years, but during this short period it has built up a strong organisation and its products have become well known throughout the Orient, even to the inhabitants of the most outlying districts, and are in popular demand.

Previous to the year 1880 or thereabouts the importation of kerosene oil into Japan, as well as into China, was on only a small scale, in part cargo shipments, but from that time on importations increased rapidly. Vessels were chartered by leading concerns in Japan and cargoes were bought direct from the Standard Oil Company and the Atlantic Refining Company on f. o. b. terms, the vessels loading at the company's wharves. For many years sailing vessels only were employed in this business, until it was found that steamer shipments could be made. By the year 1890, the trade had assumed large proportions, not only in kerosene oil, but in other petroleum products, and the Standard Oil Company of New York then decided to control the distribution of their products in the Orient and thus create better facilities to actual consumers, with the resultant increase in consumption. It was, therefore, during the early part of 1891 that the company's representatives were sent to Japan and offices were shortly opened at Yokohama, Kobe, and Nagasaki.

The development of the oil districts in Japan naturally for a time interested the company, and in fact they were (in a practical sense) the pioneers of the exploitation of the country's oil resources. The company, however, has mostly confined their operations to



THE STORAGE TANKS AND CANNING WORKS OF THE STANDARD OIL CO. OF NEW YORK, NEAR YOKOHAMA—
THE YOKOHAMA OFFICES



GREAT JAPAN PETROLEUM MINING CO., LTD.: THE HEAD OFFICE—THE TORIKOYE FIELD—ROTARY WELL BORING PLANT
AT TORIKOYE FIELD, NIIGATA

illuminating oils, gasoline, and all grades of lubricating oils and greases manufactured abroad. A portion of their kerosene oil is shipped to Japan in tank steamers and is then pumped into large storage tanks conveniently situated near Yokohama, Osaka, Nagasaki, and Itozaki on the Inland Sea, where cans and other receptacles are manufactured, in which part of the oil is filled and boxed for the retail trade. The balance is transported in bulk by the company's own tank cars, bulk lighters, and other vessels to secondary storage points, placed at many convenient outlying centres for further distribution to the trade.

A big selling and distributing force is employed to handle the company's lines throughout Japan and its dependencies. The principal offices are maintained at Yokohama, Kobé, Nagasaki, and Seoul (Korea), and these branches, as well as many others, are under the direction of the General Manager at Yokohama, Mr. Herbert Allan Ensworth, who holds this responsible post and has spent many years in the service of the Standard Oil Company of New York. He came to Japan

in 1906 as Assistant General Manager for this field, and in 1914 was appointed as General Manager. Mr. Ensworth is well known to the native and foreign communities of Yokohama and Tokyo, and is prominently associated with various representative organisations promoting interests in both cities.

GREAT JAPAN PETROLEUM MINING CO., LIMITED

THAT Japan contains many oilfields has been amply demonstrated by the success which has attended the operations of several of the old-established companies, and that the oil industry is a permanent one is apparent from the steady increase which has taken place in the yields from all the well-known centres. It is the opinion of oil experts that even now only a small portion of the resources of the country has been tapped, and consequently it is not at all surprising to find a powerful organisation, such as the Dai Nippon Sekiyu Kogyo Kabushiki Kaisha, engaged in a systematic search for petroleum. The need for such

work has been apparent to all who have given thought to the matter, because Japan can be made practically independent of all foreign oilfields if her own resources are thoroughly developed. This is the task on which the Great Japan Petroleum Mining Company, Ltd., is engaged.

The company came into existence in January, 1916, with the fixed purpose of prospecting for oil in certain localities where investigations made by the Geological Department of the Bureau of Commerce and Agriculture disclosed indications of the presence of petroleum. The capital at first was Yen 5,000,000, and the promoters of the company secured the interest and financial assistance of some of the best known business men in Japan. Furthermore, the direction of the company's affairs was undertaken by men well versed in the oil business, the services of acknowledged experts being secured for the prospecting of fields, and the putting down of bores. On April 24, 1917, the Hoko Kerosene Oil Company and the Shin-Nippon Kerosene Oil Company were

amalgamated, the authorised capital of the company being then raised to Yen 7,500,000, of which Yen 1,875,000 has already been paid up. Operations were begun in the districts recommended by the Department of Commerce and Agriculture, the company taking up leases in thirteen different areas, namely: Asahi, Yokoyama, Nishiyama, Kanatsu, Higashijima, Koshi, Higashiyama, Niizu, Nadachi, Ogumi, Furuoi, Ochiai, and Maki. These areas are situated in Niigata or Akita Prefectures, and the Furuoi is in Hokkaido. The leases comprise 118 sections, having a total area of 48,719,531 tsubo. Prospecting, which includes the sinking of trial wells, has been carried out over an area of 31,810,944 tsubo, which means that already about two-thirds of the leased area has been explored. Regular boring has been carried out over about 4,089,000 tsubo. Furthermore, the company has applied for further leases comprising 12,818,937 tsubo, so it may be seen at a glance how thoroughly

the directors are carrying out the object of making the closest search for oilfields. There are in all 95 wells or bores, either complete, or in course of sinking. Oil has been struck in greater or lesser quantities in 75 bores, 21 have been abandoned, and 17 are being sunk.

That the capital and energy of the company has been wisely applied is apparent from the results achieved after so short a period. For the first half of 1917 the company's production of oil was 3,741 koku, which was sold for Yen 36,000. Small though this revenue was, there was only a deficiency in working expenses of about Yen 9,200, the loss representing about one-two-hundredth part of the capital paid up. With the work done, and the prospects disclosed, it was anticipated that for the latter half of 1917 there would be an average daily yield of 160 koku of oil, and with such a yield there should be a revenue sufficient to provide a surplus over working expenses,

and leave a balance to pay a dividend of ten per cent. Should these expectations be fulfilled, then the Great Japan Petroleum Mining Co., Ltd., will have achieved something very rare in the history of oil mining, considering that it has been in existence only a little more than two years. There is no question but that the company has a great future before it. Its operations are on an extensive scale, and the results to be obtained should be commensurately great.

Following are the Directors of the company: Admiral Baron Y. Ito (President), Messrs. M. Hirose and T. Watanabe (Managing Directors), S. Kobayashi, H. Nishimura, S. Nakamura, T. Okumura, K. Goto, Y. Uyeda. The Auditors are Messrs. C. Hirose, S. Okada, S. Yokota, T. Nakanishi, K. Sakurai, and S. Machida. The head office of the company is at Mitoshiro-cho, Kanda-ku, Tokyo, and there are factories at Nagaoka, in Niigata Prefecture.





A MONOCHROME SIX-FOLDING SCREEN, ATTRIBUTED TO KANO MASANOBU (1490 A. D.), ONE OF THE NATIONAL TREASURES IN THE KYOTO IMPERIAL MUSEUM

XXXII. NATIONAL ARTS AND CRAFTS

By Dr. J. INGRAM BRYAN, M. A., M. Litt., Ph. D. The Meiji University and the Imperial Naval College, and Japan Correspondent of The London "Morning Post"

DAWN OF ART—THE CRADLE OF JAPANESE ART—THE BRONZE WORKERS—OTHER METALS—
IVORY AND WOOD CARVING—CERAMICS—CLOISONNÉ ENAMEL—LACQUER—WEAVING
AND EMBROIDERY—PICTORIAL ART—MINOR CONSIDERATIONS

THE mythological period of Japanese history reveals the same traces of the beginnings of art that are to be found in the prehistoric remains of European nations. The earliest examples of the idea of art in Japan are figures of men and animals found in dolmens and other places of archaeological sepulchre, and, although very primitive in both conception and execution, these figures must be regarded as considerably later developments of the race's earliest attempts at art. The contents of these ancient sepulchres show that in prehistoric times the artisans of Japan could forge iron into swords, spear-heads, armour, and horse-trappings, and could use gold and silver for decorative purposes, as well as cast bronze and manufacture wheel-turned pottery. There is abundant evidence that in the remoter periods of Japanese history the arts and crafts were highly honoured. The first metal-worker, a being descended from prehistoric ages, for martial reasons naturally receives the highest honour and is ranked among the *kami*, or gods, equally with the canonized warriors of the mythic period. It is clear, therefore, that

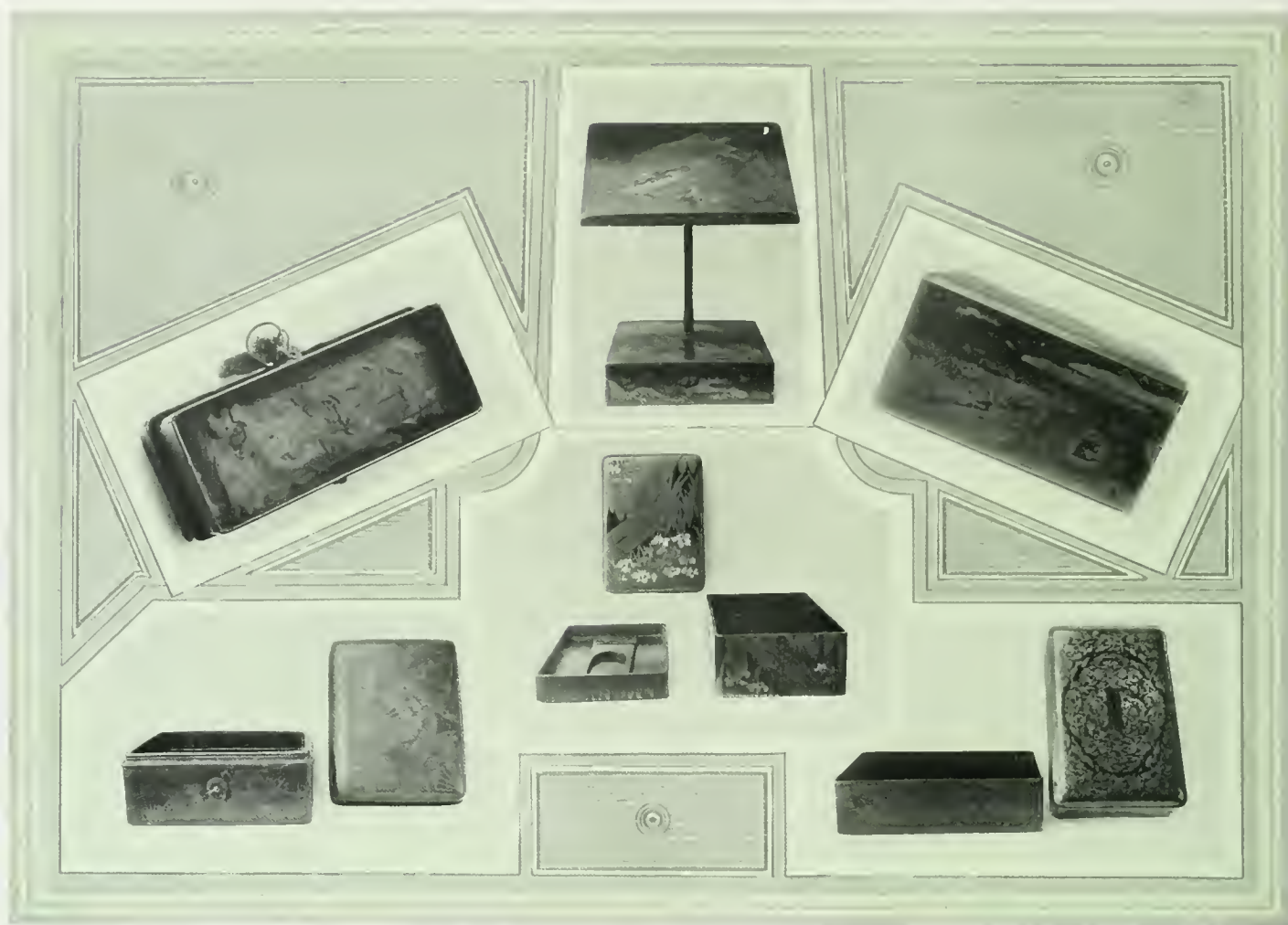
the hammerer preceded the sculptor and the painter in Japanese art, and prepared the way for the great glyptic artists of a later period. Another evidence of the early inception of Japanese arts and crafts is seen in the hereditary corporations mentioned in the most ancient chronicles of the nation: there are associations of guilds of priests, metal-workers, weavers, and potters. Such institutions appear to have been peculiar to Japan. They make their appearance at the very dawn of the nation's existence, and it is obvious that whatever country the Yamato race came from, they brought these art associations with them.

DAWN OF ART

NOR until the introduction of Buddhism, however, does the real history of Japan's arts and crafts begin. Whatever art instinct the Japanese possessed, it seems to have found no appreciable expression until the stirring inspiration and the gorgeous paraphernalia of the Indian faith became a part of the national life. And thus, as in Europe, so in Japan, did religion become the mother of art. For true

art is always an attempt to suggest, imitate or depict some divine idea that lies behind things human—the effort of the divine unseen to express itself in material form. As religion stands for the same conception in the moral and spiritual sphere, so the Church has ever been the patron of art, and art has naturally been regarded as the handmaid of religion. And a religion like Buddhism, wherein images and pictures find an important place, naturally lent impetus to sculpture as well as to pictorial art, to say nothing of applied as distinguished from creative art.

The beginnings of Japan's arts and crafts thus came to be exotic, as they were constantly in the keeping of the Korean and Chinese Buddhist missionaries and other immigrants who came from the continent. It speaks well for the catholicity of the Japanese mind even in that far-off day, that these foreign artists should have found so warm a welcome in the country. In that period Japan seems to have offered many attractions to her continental neighbours, and not to the least intelligent or æsthetic of them either. She was not convulsed by



(LEFT TO RIGHT) SEVENTH CENTURY EMBROIDERY, SHOWING THE FIGURE OF BUDDHA—GOLD LACQUER WORK OF THE EIGHTEENTH, TENTH, FIFTEENTH, SEVENTEENTH, AND TENTH CENTURIES. ALL SPECIMENS FROM THE IMPERIAL MUSEUM.

dynastic changes, and she received with open arms all who could add to her knowledge or capacity. Japan set up no racial distinctions between men's claims to the gratitude of the State. In one of her oldest authentic records, a list of peers compiled in 814 A. D., out of a total of 1,177 noble families enumerated as representing her aristocracy, no fewer than 381 traced their descent from Chinese or Korean ancestors. To this stream of immigration, with its fresh brain and blood from the continent, Japan owed the development if not the origin of her arts and crafts. And even after the national art had started on an independent career, it refreshed its inspiration constantly by careful study of and imitation of Chinese models, and even down to the present day Chinese subjects may be said to preponderate in the classical art of Japan. It must not be forgotten, however, that Japan's earliest arts were practical and applied rather than æsthetic and creative, and to this aspect of her development prior attention should be devoted.

THE CRADLE OF JAPANESE ART

WHILE it is clear that the beginnings of Japanese art came from India and China, it was in the old city of Nara, the Florence of Japan, that the newly born artistic impulse found its earliest cradle of development and nurture. In the first Buddhist images and pictures brought to Japan, it is easy to trace resemblances to the contemporary period of Gandhara in India, while the wall pictures of the Horyuji temple in Yamato, one of the oldest sacred edifices in Japan, suggest the frescoes of caves of Ajunta. Numerous relics of metal-work, lacquer-work, ceramics, and textile fabrics indicate that in this period Japan was not only in communication with China and Korea, but with India as well, if not regions beyond. In the capital at Nara, where the Imperial Court resided from 709 to 784 A. D., four sovereigns reigned in succession, and during this period the art of the nation began to lay serious claims to high achievement. In other times, when the capital moved with each new monarch, art had no settled home. Once the Imperial

Court settled permanently at Nara and art at last found a safe abiding place, beautiful temples were erected, with highly wrought designs in wood and metal to decorate them, and enshrining images and other objects indicating a remarkable degree of attainment. There is still at Nara a wooden museum called the Shoso-in, which for eleven centuries or more has been kept intact to store the most ancient art relics of the nation, most of them associated with the emperors who ruled in Nara. This building is quite unique in the history of art. There is some difficulty in distinguishing the origin of the various objects of art in the Shoso-in, but a catalogue which dates back to 756 A. D., indicates objects that are Korean and Chinese, leaving one to infer that all not thus indicated are Japanese. It is, however, going too far to assume that so many of the undesignated art objects could have been produced in Japan at a period when decorative designs had not yet developed their distinctive character. How to know with any degree

of accuracy whether one is dealing with the work of the Chinese teacher or the Japanese pupil is, therefore, a problem. If these objects are the work of Japanese artists, then it must be concluded that the native workers of the eighth century could sculpture delicately and minutely, could inlay metal with shell and amber, could apply cloisonné decorations to objects of gold, using silver cloisons, could work skilfully in lacquer, black or golden, could encrust gold with jewels, chisel metal in designs *à jour* or in the round, could cast bronze by the *cire-perdue* process, could overlay wood with ivory or inlay it with mother-of-pearl, gold, or silver, could weave rich brocades, and paint decorative designs on wood, overlaying them with translucent varnish. That such a degree of artistic and technical skill could have been attained by the Japanese in an epoch so remote as the eighth century seems to some very doubtful. Certainly, if true, it is very notable. Whether these achievements were due to Japanese genius or to Chinese and Korean example and inspiration is a question we can not now answer. But the Japanese themselves are quite willing to attribute the major portion of these ancient artistic successes to foreign guidance or even to foreign hands. But how is one to get over the difficulty of attributing art work that is undoubtedly above the level of China and Korea in that period to these countries? If they were equal to such heights in Japan, why not at home? And this applied to masterpieces of statuary as well as to smaller objects of art. In such fields as painting, ceramics, bronze-casting, cloisonné enamel, cameo-glass making, weaving, and embroidery, China, of course, excelled anything to be found in contemporary Japan, but in statuary and sculpture generally the pupils were able, under the inspiration of the new religion, to carry conception and execution far beyond the precepts of their instructors from China and Korea. In the same way the artists of the Nara period out-distanced their instructors in bell-making. In the year 732 A. D. they cast a bell for the Todaiji Temple at Nara, which is 12 feet, 9 inches in height, and 8 feet, 10 inches in diameter, weighing 49 tons. For perfection of execution and beauty of tone this bell is away beyond anything that China could do at that time, or even since. The famous statues in wood belonging to this period, now preserved at the Horyuji Temple, representing the four Heavenly Kings, are ascribed to artists from Korea and China in the sixth century. In addition to the great bell mentioned above, the colossal statue of Buddha, 53½ feet high, at Nara, was cast in this period, about the year 760. The



CARVED BRONZE BELL, MANY CENTURIES OLD,
RECOVERED FROM A BURIAL MOUND.
IN THE IMPERIAL MUSEUM

master-caster of that day was Kunio, and in wood carving and sculpture Gyoki, Bunkei and others were famous, while work in terracotta and lacquer also made remarkable progress.

THE BRONZE WORKERS

The marvellous artistic achievements of the Nara period show how early Japan attained high skill in all kinds of metal-work, more particularly in bronze. It would be an error, however, to assign to Japan the palm in bronze-casting skill. Her wood carvings are generally far superior to those of China and Korea, and in bronze her artists produced some castings of matchless art, as, for example, the immortal statue of Amida at Kamakura, but in this sort of work the Chinese excelled in designs and accurate technique, while the Koreans were superior in relief decorations. Nowhere in the Orient, however, has there been any approach to Greece as an interpreter of beauty of form. The Oriental artists in bronze are apparently unable to appreciate the contour of the human body or mould a form after the divine model of the Greeks. China, however, has produced some models

in bronze vessels whose graceful shapes compel admiration, whereas in Japan there is seldom excellence of this sort except at the cost of originality. But in giant statuary, superiority rested with the East. The Spartans had to hammer out the bronze plates for the statue of Zeus on a model, but the Chinese learned the art of hollow casting in remote antiquity and handed it on to Japan. During the Heian era, from 794 to 1183 A. D., there is evidence of continued excellence in metal-work of all kinds, due to the demand for armour and its accessories by the warrior classes. All through the Kamakura period, from 1183 to 1332, chiselling, casting, and hammered work advanced in the direction of greater elaboration and finer technique. Bronzes having decoration in relief did not make such marked progress. Although the Japanese early in the fourteenth century had received matchless examples of bronze work from China, with the peony scroll in relief, it was not until the close of the sixteenth century that fine specimens of Korean work, brought over by the predatory troops of Hideyoshi, gave any determining impulse to the adoption of similar decorative designs in Japan. Thereafter we find Japanese artists in bronze making stupahs, lamps, vases, pricket-candlesticks, censers, pagodas, gates, fonts, pillar-caps and all the other ornaments of the Buddhist faith which one sees in such profusion at the Tokugawa mausolea in Tokyo, where there is abundant evidence of Japan's skill in great variety. The process went on until Chinese shapes were covered with Korean decorations, heralding quite a new departure in bronze work. The movement soon became apparent in household ornaments, such as flower vases and censers, which up to this time had been made in other metals only. It was not until the seventeenth century, therefore, that in Japan the art of casting bronze became so delicate and refined that its products could rank with the choicest specimens of glyptic art. Among the names that stand out conspicuously in the development of the art in Japan are those of Kamé, Seimin, Jouin, Masatsuné, Teijo, Sonin, Keisei, Gido, and Takusai, in the older period, while in more modern times Suzuki, Okazaki, Hasegawa, Jouin, and Jomi have produced work equal to anything done by the masters of the past.

OTHER METALS

JAPAN is a country of contrasts, and nowhere is this more true than in her art. The difference between the colossal statues of Buddha in bronze at Nara and Kamakura, and the exquisite temple and parlour bronzes of later periods is assuredly vast, and in the



IVORY CARVINGS (TWO UPPER ROWS) AND EXAMPLES OF NETSUKÉ WORK

same way one may note the contrast between the cyclopean mediæval castles of Japan and the tiny metal-work ornaments that may be said to constitute their jewelry. As time went on the artist turned from giant forms to small, and in all lines of diminutive metal-work the glyptic artists of Japan stand unrivalled, especially when it is remembered that here they owe nothing to foreign inspiration. As an example of forging the Japanese sword was unique, but it was not more original than the metal ornaments it carried. In all forms of sword furniture the Japanese artist in metal displayed remarkable excellence. Unlike Western weapons of this class, the Japanese sword had nine adjuncts, in every one of which the native artists produced peerless specimens of sculpture and metallurgic processes. Some of these pieces are idyls of pictorial art, equal to the tiny scenes on Greek pottery. The artist in this sort of metal-work apparently loved to expend the most patient efforts on even the least conspicuous portions of the object ornamented, partly because loyalty to his art demanded it, and partly because he wished to protest against any striving after mere ostentation.

In exquisite achievements in metal-work there are thirteen generations of the Goto family, extending from the sixteenth to the nineteenth century, each of which excelled in some specialty of technique or decorative design; as, for example, the Yokoya experts who invented *katakiri-bori* in which every line has its own value in the pictorial scheme, the Nagoya masters, famous for wood-grained grounds on metal, the Myochin family, in whose hands iron was as tract-

able as wood, the Nagayoshi, who were renowned for inlaying, the Kisai artists, associated with fine carving *à jour*, and there are hosts of other names almost equally celebrated.

In this kind of art must be included *netsuké* also, those delightful objects revealing as much the art of the metal-worker as the skill of the sculptor. The art which India had learned from Persia in the carving of ivory and wood, and which China had developed in carving elephant tusks and the horns of the rhinoceros, attained its full range of conception only in Japan, where it reveals a wealth of fancy, realistic, conventional, grave, humorous, and grotesque in the making of *netsuké*, that has no equal anywhere. With the passing of the ancient pipe-case

and tobacco pouch, as well as of the old-time medicine box, the day of the *netsuké* ended, but the glyptic artists found other fields for skill in the sculpturing of ivory statuettes and the production of various utensils and ornaments of impressive beauty. In silver salvers, tea and coffee services, fruit dishes, napkin rings, spoons and other table furniture, the work of the Japanese artist has a beauty all its own, made, as such work is, by the hand of a master, and not cast, as abroad. The demand for cheap art is, however, forcing the metal-worker down to the level of his customers, resulting in mere decorative effect rather than artistic merit.

IVORY AND WOOD CARVING

We have seen how Buddhism from the beginning lent great impetus to wood sculpture, for when metal could not be had, or was too expensive, wood was always at hand to afford imposing images of gods and saints, as well as to adorn in fine carvings the temple friezes and gates. Few examples of the wood-carver's art now remain, as, unlike bronze work, wood was subject to decimation by fire. A wooden statue by the famous Shiba Tori is still preserved in the Horyuji Temple, dating from 623 A. D. Later centuries, however, show few carvers of great talent and skill, the most important in the ninth and tenth centuries being Kosho and his son Jocho, with Unkei in the Kamakura period. The art of the sixteenth and seventeenth centuries in wood was confined to exterior embellishment of temples, fine examples of which are to be seen at Nikko in pillars, panels, beams, brackets, animals, birds, and flowers. The greatest name in this period was that of Hidari Jingoro. With the rise of the puppet theatres there was new employment for carvers in the making of



THE FAMOUS CARVING OF THE THREE MONKEYS, AT NIKKO
("HEAR NO EVIL, SPEAK NO EVIL, SEE NO EVIL")



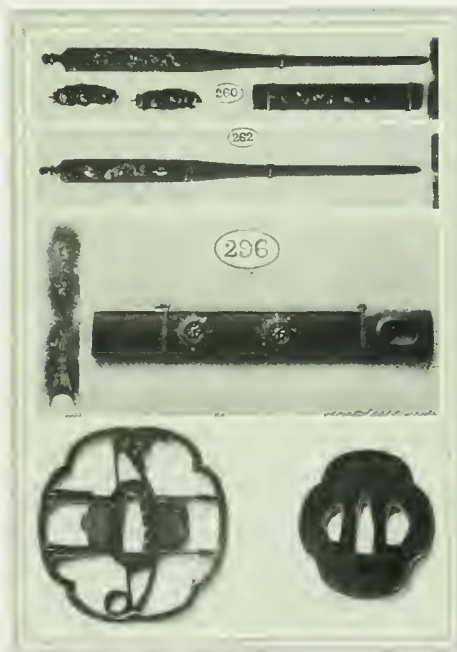
WOOD AND IVORY CARVERS AT WORK

images and masks, the work of such artists as Matsumoto Kisaburo in the nineteenth century even finding its way abroad. Among modern wood-carvers and sculptors the names of Takamura Koun and Takenouchi Kyuchi are prominent. In ivory carving, as well as in wood, art is suffering from want of appreciative patronage. Most of the demand for work of this kind is abroad, some 90 per cent of all the objects made being exported, chiefly to the United States. The old carvers were forced to work on small bits of tusk which were big enough to produce *netsuké*, but the modern carver may have a whole tusk to himself if he so desires, and has, therefore, an unlimited field. Most of the ivory artists, however, have to be content with carving decorative objects for foreign customers, which work they find more lucrative than aesthetically inspiring, compelled, as they are, to think of time and contract, and not, as in the old days, moved by genius and ideal conception. There does not appear to be any very great appreciation of ivory carving among the Japanese themselves, owing, perhaps, to the comparatively high cost, and the unsuitability of Japanese houses for such ornaments. Nevertheless, at present carving in ivory is showing more skill and achievement than carving in wood, and many of the wood-carvers are, therefore, abandoning wood for ivory. The wood-carver has indeed fallen upon evil days in Japan. The successors of those inimitable artists who produced the friezes and pillars of the temples at Nikko and the wonderful masks of the Noh drama, have now to be content with making fancy table legs and other furniture, stands for metal vases, and even toys. In such work as *sashimono*, or cabinet-making, there is, of course, room for the display of great art in carving, and in objects like *tansu*, or chests of drawers, char-

coal braziers, tobacco trays, and furniture generally, some really beautiful work is being done. Here the skill of the joiner combines with the genius of the artist to produce caskets and cabinets worthy of all admiration.

CERAMICS

THE making of porcelain and pottery is, of course, one of the oldest of Japanese arts.



UDO COPPER SWORD FURNITURE INLAID WITH GOLD. DESIGNED AND CARVED BY GOTO MUNENORI (SIXTEENTH CENTURY)—RARE SPECIMEN OF KOZUKA UDO COPPER SWORD FURNITURE (SIXTEENTH CENTURY). CARVED WITH BUDDHIST WHEELS AND INLAID WITH GOLD. BY JOSHIN GOTO—IRON SWORD GUARDS OF THE SIXTEENTH CENTURY (KANAYAMA-TSUBA STYLE), MADE BY NOBUIYE, A NOTED ARTIFICEER. SPECIMENS FROM THE IMPERIAL MUSEUM, TOKYO

Introduced originally from China and Korea, and improved under the tutelage of later continental teachers, the ceramic art of Japan early attained a high degree of excellence, especially under the patronage of the great feudal lords, who encouraged in every fief the art and activity of potters to meet the needs of the people as well as to produce specialists in the craft. Upon the decline of feudalism the art of pottery suffered a relapse, and the number of districts engaged in it considerably lessened. The Meiji Government imported experts from abroad who introduced new methods of manufacture and the use of foreign pigments in decoration, after which the potters of Mino, Kyoto, Aichi and other centres began to emulate one another in the new movement, which, though more profitable commercially in its appeal to the inferior taste of the West, has departed sadly from the ceramic art of the old masters.

Although collectors generally speak of Japanese porcelain in accents of enthusiasm, it has to be admitted that the Japanese artist in porcelain, as distinguished from faience, never rose quite to the level of his Chinese teacher. The pottery of Imari, called in Europe Old Japan Ware, with its deep-toned fields and crowded designs; the Nabeshima porcelain, which stood for a more aristocratic type of ceramic art; the Kutani ware with its brilliant, richly massed enamels, and the Hirado pottery in delicate blue *sous couverte*, all go to testify to the æsthetic sobriety of Japanese taste, and they form the four great divisions of porcelain on which the fame of Japanese ceramists must rest. Yet in the opinion of experts they are on the whole inferior to Chinese masterpieces with their wonderful monochromes, in indescribably delicate *clair-de-lune* or faultless liquid-dawn; or the Chinese



CLOISONNÉ-WARE ARTIST AT WORK

hawthorns, soft paste blue-and-white, bean blossom, transmutation glaze, egg-shell, famille-rose, and other incomparable creations. Before this galaxy of brilliant varieties the masterpieces of Japanese porcelain must, perhaps, pale. But not so in the case of faience, which the Chinese ceramist was prone to regard with contempt, but in which the Japanese potter most excelled. The choicest specimens of old Satsuma ware, as well as some from Kyoto, hold

undisputed preëminence in the realm of faience.

While the ceramists of modern Japan do not seek to build their fame on reproducing the masterpieces of the past, they *do* turn out work equally fine, and in much greater variety, at the same time adapting their art to the needs of modern markets at home and abroad. Foreign influence, however, has forced deterioration, as will be noted later. Instinctively the Japanese artist in

porcelain turns to China still for models, for he knows that the Kanghsi, Yungcheng, and Chienlung masters stand on a pedestal to which he must climb before essaying independent flight. While the Japanese ceramist has produced many notable pieces of beautiful porcelain, the liquid-dawn monochrome of his Chinese master still eludes him. In ivory-white, *céladon*, blue *sous couverte*, enamelled painting over glaze, mirror-black, translucent decoration, and various subglaze colours, as red, green, yellow, and black, the Japanese potter has succeeded admirably, as well as in the wonderfully attenuated *pâte* of the Chinese *Tolai-ki*. In ceramics, Japan has never



SPECIMEN OF CLOISONNÉ WARE IN THE IMPERIAL MUSEUM



THE POTTER

ceased to be China's pupil. In the thirteenth century Kato Shirozaemon visited the Sung kilns and acquired knowledge that resulted in the wares of Seto. In the sixteenth century Shonzui learned at Ching-te-chen the process of making blue-and-white porcelain, and in the nineteenth century Seifu, Shozan Takemoto, Kato, and Higuchi had no higher ambition than to reproduce the masterpieces of China.

At present there are some fifteen places in Japan noted for the production of pottery, among which the more distinguished are Kyoto, Hizen, Seto, Mino, Kaga, Satsuma, and Tokyo. In porcelain, as in other arts, the difficulty is to find patronage that will justify the patience and application of genius necessary to the production of masterpieces. In the United States, where there is a large demand for Japanese pottery, taste



EXAMPLES OF KYOTO WARE, BY THE ARTIST KANZAN—ANCIENT SPECIMENS OF KUTANI AND IMARI WARE—SETO WARE—THE KANON
 BUDDHA, IN PORCELAIN—KYOTO WARE BY THE FAMOUS ARTIST, NINSEI—ANCIENT SPECIMENS OF SATSUMA—SETO WARE—
 RARE SPECIMENS OF IMARI AND SATSUMA WARE—IMARI WARE. ALL FROM COLLECTION IN IMPERIAL MUSEUM, TOKYO



EXCELLENT MODERN SPECIMENS OF CLOISONNÉ WARE BY THE KIN-UN-KEN FACTORY, KYOTO

has encouragingly improved within the last few years, but as much can not be said for other countries, the demand being still greatest for hasty productions in gaudy decoration. Naturally the demand for inartistic exports has reacted unfavourably on ceramic art in Japan, but there is now a firm move being made to eliminate at least the vulgar mixture of Japanese and foreign elements in form and decoration. Some of the modern porcelains produced for those willing to pay for them are exquisitely beautiful, comparing favourably with the best of the past. Even the table-ware of the poorest Japanese is infinitely more artistic than that of the higher classes in Western countries. Thus it is clear that it is not so much cost of production, as it is inferiority of taste, that results in the enormities of decoration made for foreign export.

CLOISONNÉ ENAMEL

This is another of the delightful arts that Japan acquired from China. In old Japan the process of enclosing vitrifiable enamels in designs traced with cloisons was employed solely for the decoration of sword



AN EXQUISITE EXAMPLE OF THE CLOISONNÉ ART (KIN-UN-KEN)

furniture and other subordinate purposes, but Kaji Tsunekichi in the nineteenth century extended its use to the manufacture of vases, censers, and bowls. At first, in cloisonné work the Japanese did not approach the excellence of the Chinese in grandeur of colour and perfection of technique, their shades being always sombre and often impure, but this period of inferiority soon gave way to work of high skill, showing specimens of remarkable richness of decoration and purity of design, as well as admirable harmony of colour. New departures were made by the introduction of cloisonless enamel, known as *musen-jippo*, and translucent enamel. In this connection the names of the two Namikawas, and of Ando and Hattori deserve special mention. The use of silver instead of copper as a base, and the setting of designs on the surface in greater relief by the *ishimé* process, indicate still more recent progress in the art, while Ando has successfully imitated the French process of translucent designs, and Ota in producing the red monochrome that has long been the ambition of workers in cloisonné enamel.

LACQUER

THIS is certainly one of the most beautiful of Japan's arts and crafts. On account of the high excellence it has attained in form, design, and execution, as well as on account of the remarkable patience and skill required in its successful manufacture, the art must rank among the noblest efforts of æsthetic achievement. The designs in lacquer range from great simplicity to elaborate decoration, while the wonderful glow and sheen of the gold, silver, and other variously coloured lacquers represent something that is a joy forever. Like other Japanese arts, lacquer work first came from China, and that very early, as it is mentioned in the oldest chronicles of Japan. Articles in this craft are preserved in museums and temples of Japan, that date as far back as the sixth century. The earlier work appears to have been in black, often inlaid with mother-of-pearl, and mother-of-pearl on a gold ground appears in the tenth century, and boxes with light gold, with fence, flower petals, and birds have come down from the twelfth century. By the fifteenth century decoration expanded into floral and conventional landscapes, as well as figures and architectural themes. In process of time the Japanese artist in lacquer seems to have far surpassed his Chinese masters, especially after the fourteenth century. The carved cinnabar lacquer of China, of course, had no equal anywhere, but in other forms the Japanese artist showed



THE PROCESS OF CONDENSING LIQUID LACQUER IN THE SUN

unapproachable excellence. In the second half of the fifteenth century the dilettante shogun Yoshimasa established tea clubs which demanded various artistic utensils in lacquer, when the craftsmen of Japan soon began to produce that beautiful gold lacquer with decorative designs in relief, known as *taku-makiye*, as well as *nashiji*, or

lacquer with aventurine ground, resulting in a long succession of exquisite specimens and culminating in the elaborate decoration applied to the interior of the Tokugawa mausolea in Tokyo and Nikko. The summit of development was reached in the latter part of the seventeenth century when the output was as artistic as it was extensive



VERY EARLY SPECIMENS OF TAPESTRY—A SPECIMEN OF CUT VELVET, A HUNDRED YEARS OLD, BY HIDA SHINSHICHI OF KYOTO—A SPECIMEN OF CUT VELVET AND GOLD BROCADE, MORE THAN A HUNDRED YEARS OLD, BY OKIO. (SPECIMENS FROM THE IMPERIAL MUSEUM, TOKYO)

In the eighteenth century the names of Sosen-sai, Chohei, Jokasai, Tayo, Kokyo, Hirose, and Eki were among the most notable artists in lacquer, while in modern times Uyematsu Honin and Shirayama Shosai have no equals. Indeed, the work of the

Western mind has a full appreciation of this art in the same sense as the Japanese, and consequently lacquer has always been more valued in Japan than abroad, though the demand for better work in Western countries is increasing. Even in Japan the best

representations of Buddha sixteen feet long are mentioned in the sixth century, and the older temples of Japan have specimens of this art dating from remote antiquity. Both weaving and embroidery received marked impetus from certain schools of actors whose theatres required elaborately woven and embroidered robes to lend spectacular effect to their dramas. In connection with this *Noh-kyogen* drama, Japan in time became the possessor of such stores of textile fabrics as have never been excelled anywhere in point of richness of quality, beauty of design, and delicacy of technique. Many of these famous collections have been dispersed abroad where they serve to denote the achievements of old Japan, but the modern exponents of these arts and crafts are in no way behind their predecessors. The modern brocades of Japan are, perhaps, not always superior to those of the old masters, but on the whole they afford very favourable comparison with the best achievements of the past. Especially in *tsuzure-nishiki*, or tapestry, the modern manufacturer has far out-distanced his ancestors, while in embroidery the present-day masterpieces in their wonderful chiaroscuro effects and aerial perspective are away beyond anything that the past has produced, and the remarkable cut-velvets of the Kyoto artists have made an entirely new addition to the list of art fabrics. In silk brocade the Japanese artist can produce any scene from nature or any pattern selected, with his tiny loom and threads of silk and gold. This is now the most highly prized of all Japan's textiles, but such products can be afforded only by great personages, and even these wear them only on important occasions. During the last fifty years the art of weaving silk brocade has made marvellous progress under Jimbei Kawashima of Kyoto who received much encouragement from the late Emperor. He it was who undertook the matchless creations in this art which the late Emperor presented to the Palace of Peace at The Hague. One of the finest pieces of silk tapestry in the world is in the Imperial Palace at Tokyo, a magnificent creation eighteen feet by twenty-four, which took several years to complete. Only genius of great originality and inspiration could have produced the masterpieces in this art to be seen only in Japan.

PICTORIAL ART

In the past foreigners have been prone to treat Japanese art as for the most part decorative or applied art, quite satisfied if they have taken a scant review of the nation's porcelain, pottery, lacquer, carving, and colour-prints, without making any study of



SPECIMEN OF ANCIENT CUT-VELVET WORK, IN THE IMPERIAL MUSEUM, TOKYO

lacquer artist to-day is quite up to that of any of his predecessors. All the finest pieces of the past were made to order, just as it must be with the best work to-day. It is impossible to form any adequate conception of the wonderful variety of designs and the endless combination of colours and materials over which the modern craftsman holds magic command. The Japanese, as a rule, reveal simple taste in lacquer, such as the plain, severe black, or *nashiji*, of the seventeenth century, with, perhaps, a spray of plum or cherry blossom or a bird soaring toward the rising moon or rising sun. Foreigners, however, prefer the more elaborate and overcrowded work of the Genroku period, inlays of mother-of-pearl or coral, various metals with special use of gold. But no

pieces have always been purchased by the Imperial Family, to be used as gifts for great personages and foreign potentates.

WEAVING AND EMBROIDERY

As one of the earliest industries of the nation, weaving in time began to reveal the development and originality of an art. In the oldest annals of Japan it is mentioned as an avocation of goddesses in the mythology of the nation, and corporations of figured-cloth weavers are mentioned as existing in 10 A. D. From this it appears that the art of weaving was practised in Japan from immemorial times, and China and Korea contributed materially to its development. Embroidery, too, must have been an ancient art of Japan, for embroidered

its creative or pictorial art at all. This was in some measure due to the fact that the masterpieces of Japanese painting were hidden away as treasures, and the world was ignorant of the existence of such works as Japan can show. In recent years, however, these have been brought from their hiding places and put on view in the great museums and galleries of the nation, and the wealth of Japan's artistic achievements has become better known. After all it must be admitted that a nation's applied or industrial arts and crafts are but the overflow of the shaping and inventing energy, as well as the inspiration of her creative or free arts. The decoration of things of use and luxury is but the reflection of designs emanating from the minds of the great masters of the brush and the chisel.

Pictorial art is one of Japan's oldest achievements, introduced, like other and kindred arts, from Korea and China. In the hands of Kanaoka in the ninth century the national pictorial art began to show some signs of breaking away from slavish imitation of the Chinese masters, but the painting of Japan did not completely find itself until the eleventh century, when the Tosa school appeared at Nara. Before this there had been the Yamato school, established by Motomitsu, which contained in itself most of the peculiarities that have characterised Japanese painting ever since, such as neglect of perspective, impossible mountains, quaint dissection of roofless interiors, and devotion to insects and hobgoblins. This school finally evolved into the Tosa school of painters and thenceforward devoted itself more to classical subjects. The Tosa painters were intent on the national manners and customs of the past, and included a long line of brilliant names down to Mitsuoki of the seventeenth century, who painted the thirty-six poets for the Toshogu at Nikko. From the Tosa school arose another line of artists with Kosin at their head, producing richly decorated pieces in coloured ink, depicting scenes and objects in nature. In more modern times the honours of the Tosa school have been worthily upheld by Kobori. The Kano school of painters, an imitation of the northern school of China, arose in the fourteenth century, producing an extended list of great names like Shoku, Suten, and finally Masanobu, whose works are still to be seen in various temples. The fifteenth century is generally regarded as the most glorious period of painting in Japan, as indeed, by strange coincidence, it was in Italy, Chodensu and Josetsu achieving fame in the depiction of Buddhist subjects. Other names of the period were Mitsunobu of the Tosa school and Sesshu, Shubun, and



EMBROIDERY ARTISTS

Masanobu of the Kano school. The latter, even down to the present day, has continued to be the stronghold of classicism in Japanese painting, by which is meant a close adherence to Chinese models and subjects at second hand. The quiet harmonious colouring and the bold calligraphic drawing of the old masters have justly excited the emulation of succeeding generations, though the circle of ideas in which the old masters moved was too restricted to command universal admiration. It was under the influence of the calligraphic art of the southern school of China that the Bunjin school arose in Japan, a school noted for the elegance and beauty of its brush work, and of which Kazan was a master. One of the great

names of the Kano school, Maruyama Okyo, founded a school in the eighteenth century bearing his name, its leading feature being a faithful adherence to nature. Keibun, Tokohiko, Gyokusho, and Bunkyo, who died some time ago, were all brilliant pupils of Okyo. The Shijo school of painters, notably Takenouchi, showed admirable independence in the direction of a pure Japanese style, practising a graceful naturalism, while the school of everyday life, known as the Ukiyo-é, devoted itself to the manners and customs of the common people of the streets. The beginning of this popular movement in Japanese art may be traced back to the droll sketches of Iwasa Matahei in the sixteenth century, and the idea was later



A VERY OLD PORTRAIT OF YOSHITSUNE, IN
THE IMPERIAL MUSEUM, TOKYO

developed by Moronobu and Hanabusa, who illustrated books in popular style in colour. The influence of Okyo, who made a sincere attempt to paint with his eye on nature, did something to turn the public mind to things natural and real, and a whole host of artists arose depicting life around them, releasing art from the cold conventionalities of Chinese taste and bringing it down to the society of living men and women. One of the greatest names in this artisan school was that of Hokusai, who from 1760 to 1849 poured forth a continuous stream of novel and vigorous creations covering the whole range of Japanese motives, and resulting in those wonderful colour-prints for which Japan has become justly famous. Other noted names of the Ukiyo-é school were those of Toyokuni, Kunisada, Shigenobu, Hiroshigé, and Kyonobu. The last of the masters of the old school was Kyosai, who survived until 1889, his main themes, with grim appropriateness, being the ghosts and skeletons of the past.

After the opening of Japan to Western civilisation and art, the painters of the nation had serious difficulties with which to contend, just as their ancestors before them had when Japan came into contact with the influence of China, with this difference, however, that when Japan came under the tutelage of China in art as in other things, she had no

traditions and nothing to unlearn but everything to learn, but when she came face to face with the West she had an immense tradition to overcome and a long line of artists to demand her loyalty. Art, like religion, is something inseparable from the soul of a race, and the result will wholly depend on the attitude of the mind to the world. In that attitude the religion and the mind of Japan differed profoundly from

worthy of universal appeal. It is a grave question with some whether the pictorial art of Japan has made much progress since the days of Okyo and Motonobu, while others even doubt whether at any time she has risen above the level of her Chinese masters, especially in the delineation of landscape with noble breadth of design, subtle relation of tones, splendid calligraphic force, and an all-pervading sense of poetry, such as one sees in the masterpieces of the Tang, Sung, and Yuan epochs, and which have been at once the ideal and the inspiration of the artists of Japan. But just as the glyptic art of Japan won triumphs of its own in such spheres as *netsuké* and sword furniture, the pictorial art of the nation has revealed its special genius in the Tosa and the Ukiyo-é painters and their successors in modern times. Though now in art the nation seems

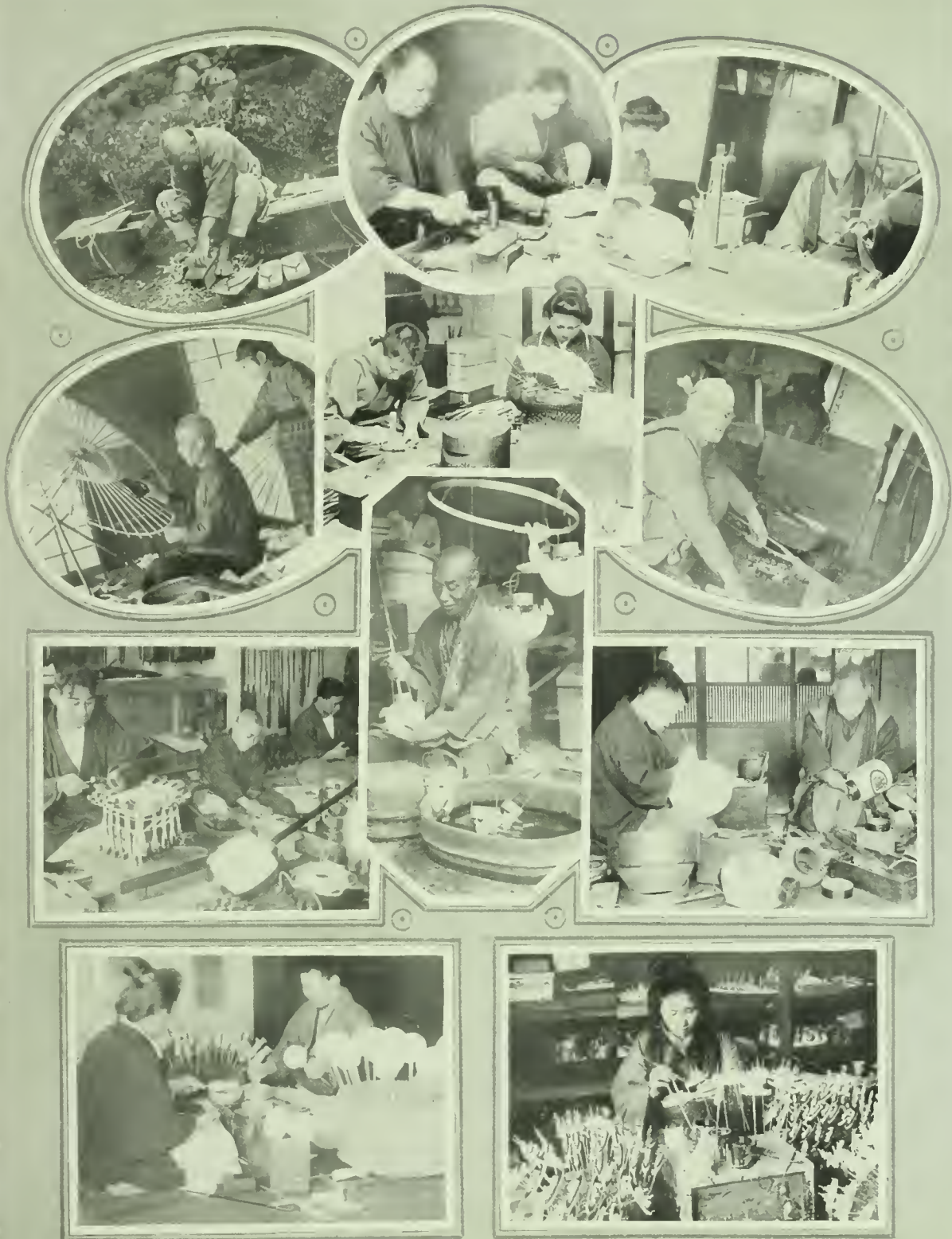


AN ANCIENT PAINTING OF SUGIWARA
MICHIZANE

Europe. At first it was supposed that everything foreign, including art, was superior, and native masters like Hōgai and Kyōsai were neglected, the pupils flocking to the new art teachers imported from Europe by the Government. But even the foreigners themselves, led by Professor Fenollosa, opposed the aversion from the old masters and did something to stay the wild rush to escape the past, and so evade all pretence to originality. And so when the National School of Fine Arts was founded in 1886, Hōgai and Gaho were its chief teachers. A brave attempt was made to preclude the old, native artistic individuality being lost during the absorbing interest in the art of the West. Devoted as some Japanese artists have been to the Western style of painting, Japan has not yet produced her Turners or Tintoretts, nor at the same time has she given the world anything in native style



PAINTING OF AN ANCIENT GOD (TODAIJI HACHIMAN), FROM THE IMPERIAL MUSEUM, TOKYO



HUMBLE MODERN CRAFTS: (UPPER ROW) THE SHOE REPAIRER—THE SHOE MAKER—PRAYER BEAD MAKERS; (SECOND ROW) THE UMBRELLA MAKER—FAN MAKERS—THE VILLAGE BLACKSMITH; (THIRD ROW) SAMISEN MAKERS—THE DRUM FISH LANTERN MAKER—LANTERN MAKERS; (LOWER ROW) DOLL MAKERS—A TOY MAKER

at the parting of the ways, at a loss whether to follow the West or to rely on the inspiration and example of its own past, there is no doubt that the Japanese artist will eventually find himself, however difficult it may be for him to get away from convention, Occidental or Oriental. Even as the Tosa painters had no peers in China as historical

aesthetic realm, Kuroda and Miyaké have boldly adopted Occidental canons of art: all these have produced pictures and are still producing them, none of which, perhaps, are quite worthy to hang with the old masters. But as the noise and confusion of the transition period cease and the era of doubt passes, the era of achievement approaches. When

The bird may be perfect, but the tree only a conventional short-hand symbol; the bamboo lifelike, but part of it blurred by an artificial atmosphere that never was on sea or land. The Japanese artist is a poet and not a photographer; he is painting memories and feelings, not scenes or objects. Had he breadth of view and great genius he might produce something grand, but he aims at condensation, not expansion. He is intensive rather than extensive, believing that the divine begins where the visibility ends. Perhaps it is because Japanese art has been utilised so much in decoration that its peculiarities have been over-emphasised, for who would look on the side of a teapot for a rigid observance of perspective? And so, while in broad surfaces Japanese art has won no great place, as decoration for smaller surfaces it has already conquered the world. In this way Japanese art has discovered the truth that mechanical symmetry does not make for beauty. Western art aims at the complete realisation of a scene, whether observed or imagined, while the Japanese artist is concerned only with abstracting the reality by reproducing for the spectator the emotion evoked in the artist — and all not tending toward this end is omitted. Western artists are to-day devoting more attention to this spiritual presentation of life than to the pursuit of realism for its own sake, and thus they are more closely approaching the Japanese ideal. This the Japanese artist is himself beginning to realise in some measure, and the more he does so the less likely he is to abandon the native for the foreign tradition. While adopting Occidental superiority in knowledge of perspective, anatomy, light and shadow, the Japanese artist will preserve his own ideals and have more regard to motive and nature and man than to the mere crust of society and civilisation. It would, indeed, be a misfortune if the artists of the new Japan should allow their ideas to be clogged or their ideals to be swamped with Western materialism, or that they should surrender their delicacy, suggestiveness, and reticence of power for mere imitation of some Western ideal, losing touch with the life of Japan. Many of the foremost artists of the nation have already come to the conclusion that greatness can never lie in a combination of qualities that do not harmoniously blend. The distinctive virtues of Japanese and Western art can never be combined without losing something of individuality and charm. Art, however, must always be a criticism of life, or nothing, and the future of Japanese art depends on the moral and spiritual ideals of Japan herself. The present confusion prevailing in this respect accounts for the corresponding confusion in the world of national art.



FU-JIN (GOD OF WIND). ONE OF A PAIR OF COLOURED, TWO-FOLDING SCREENS, ATTRIBUTED TO TAWARAYA SOTATSU, SEVENTEENTH CENTURY. OWNED BY KENNIN-JI TEMPLE, KYOTO

illustrators, combining the realistic and the decorative in an admirable manner, so the modern painters of Japan will eventually contradict the contention that they are degenerating into hybrid schools with the virtues of neither East nor West. The Tosa school found its inspiration in the camp, the castle, and the battlefield, and the Ukiyo-é in the voluptuous æstheticism and the refined sensuality of the boudoir and the bagnio, but the painters of new Japan will not fall into the austerities resulting from war on the one hand, nor the vices resulting from idle peace on the other. They live in an age of transition without any traits sufficiently marked to arouse enthusiasm or inspire ideals. Bunkyo and Imao have explored the naturalistic field, Kawabata and Watanabe have been groping in the

achievement arrives will it reveal more of what is Japanese or more of what is foreign?

There are those who wisely hope that the artists of Japan will aim at maintaining the nation's reputation in the field of art after the native rather than after the foreign manner, as in the old ways they are more likely to succeed. If Japan's fame is not to suffer she must aspire to eminence in lines that do not come closely into competition with Western achievement. Japanese painting is distinguished by directness, facility, and strength of line, revealing a bold dash that is probably due to the habit of writing and drawing from the elbow rather than from the wrist. The merest sketch has, therefore, a calligraphic quality that gives it merit. Though it may be faultlessly accurate in natural details, it scorns to be tied down to any rules.



THE ARROW MAKER



PASSING CRAFTS

THE SWORD SHARPENER

MINOR CONSIDERATIONS

SCULPTURE, which used to be one of Japan's fine arts, has not been such now for centuries. The static poses of Buddhist statuary have chilled the native ideal and resulted in a decline of skill and aspiration that no effort seems able to overcome. Serious attempts are being made, nevertheless, toward revival, and there is really no good reason why the art of sculpture should not develop and expand. Most of the modern efforts in marble and plaster are close imitations of Western art and too trivial or lacking in force of conception to claim the honour of genius, or even to claim kinship with their Western masters. In art processes, however, Japan is more highly distinguishing herself. If she can not paint modern masterpieces she can at least print them as nearly like the originals as any copy can be. In the magnificent reproductions of ancient masterpieces by the *Shimbi Shoin* the world has at its disposal the whole output of Japanese pictorial and other art for centuries in albums of reasonable price. Most of the minor arts, however, are sadly affected by modern commercialism. With the introduction of aniline dyes has come a renewal of the colour-print, but the skill of the wood-engravers is especially seen in the reproducing of old masterpieces already mentioned. At the same time, there is going on a divorce between creative and decorative



A HAWK ON A PINE TREE. MONOCHROME,
ONE OF A PAIR OF KAKEMONO, BY SESSOU,
SIXTEENTH CENTURY, OWNED BY MANSHU-IN
TEMPLE, KYOTO-FU

art that is to be deplored, and the only hope lies in the real artists taking more interest in the too long despised crafts. To a large extent, modern lithography is driving the old art of xylography from the field, while photography is being more and more preferred to the illustrator for books and periodicals. Even the Japanese colour-printers of old masterpieces have in some measure to rely on photography for accuracy of reproduction, but the results are far superior to those of former days under the old-fashioned processes, as the print is an exact copy of the original and often as many as a hundred tints are used in one picture.

The Japanese are now beginning to appreciate the value of their national masterpieces and are buying them up to prevent their leaving the country. When a painting from one of the old masters comes on the market the competition for it is most keen. Recently one by Korin was knocked down at 105,000 yen, and another from the brush of Okyo at 108,000 yen. Museums and galleries for the preservation of art treasures have been established, and the Government holds an annual exhibition of present-day masters, when over 3,000 pieces are submitted and about 300 selected for hanging. The ancient art treasures of the nation now number 2,533, and are preserved at a cost of some 2,000,000 yen.



VIEW OF A BUSY SECTION, SHOWING THE CONTRAST BETWEEN THE EUROPEAN AND JAPANESE STYLES OF ARCHITECTURE, TYPIFYING THE PROGRESS OF MODERN JAPAN

XXXIII. THE CITY OF OSAKA

ANTIQUITY—MODERN OSAKA—CITY GOVERNMENT—FINANCE—INDUSTRIES AND TRADES

OSAKA, the commercial and industrial metropolis of the Japanese Empire, has had a lengthy and interesting history, rivalling that of the capital itself. When the first Emperor of the newly founded Empire of Yamato, Jimmu Tenno, undertook an expedition to the eastern portion of his dominions, he landed near the site where Osaka now stands, and called the place Naniwa. From that time the village became a centre of importance, especially as a rendezvous for ships and a stopping place for travellers. In the literature of the day the place is mentioned as possessing a good harbour. The space now occupied by crowded thoroughfares and imposing buildings given to manufacture and trade was in ancient times the foreshore, long since rescued from the sea. At first the localities now known as Momoyama and Tennoji went under the general name of Naniwa, and when the Emperor Nintoku set up his capital there

in the fourth century the city began to assume a position of national importance. Much attention was devoted to the improvement and development of the new capital, the streets being better laid out, canals excavated, and everything possible done to make it a place worthy of imperial residence. During the time of the Emperor Kinmei and the Empress Suiko, Naniwa was a great meeting place for foreigners, including embassies from China. Stately mansions and gorgeous Buddhist temples began to rise, and the city became a centre of political and religious propaganda, and in its environs not a few famous battles were fought. In time the capital removed to Nara and Naniwa began to decline, but owing to its advantageous position as a port and centre of commerce, it never could fall into complete decay. When the famous Hideyoshi built his castle there in 1583 the place again assumed the importance of an administrative centre. To raise the lofty

walls of this, the greatest fortress of old Japan, is said to have taken years of labour and the toil of more than a million hands. Upon the overthrow of the Toyotomi family and the rise to supremacy of the Tokugawa clan, a representative of the central Government was stationed at Osaka as the strategic point of the Empire, and from that time its commercial prosperity was assured.

ANTIQUITY

FROM very early times Osaka was regarded as the Chicago of the Empire. Within its walls were established great warehouses for the storing of rice, and it became the grain emporium of the nation. Into these warehouses flowed the rice paid in taxes to the several daimyo, and from there the grain was sold or exchanged. Possessing a convenient outlet to the Inland Sea, Osaka afforded facilities for the despatch of supplies to the various vassals of the barons, as well as for

the marketing of surplus products, and it came to be an industrial centre as well. The city was not, however, wholly given up to material pursuits. Osaka was celebrated in the dramas of Chickamatsu, the Shakespeare of Japan, and also in the popular novels of the city, producing new schools of acting and of writing.

In the year 1625 the population of Osaka is recorded as numbering 300,000, and by the year 1662 it had increased to 400,000—a time when the number of citizens in London was no more than 179,000. Plague and fire often decimated Osaka, as they did the capital of Britain, and Osaka continued to be a place of great commercial and industrial importance while many of the modern European cities were still in the making. A century later we find the Imperial Government depending on the wealth of Osaka to tide over its financial emergencies, and the calls made upon its citizens for loans were promptly responded to, the money being supplied by a remarkably small number of capitalists. With the abolition of feudalism Osaka naturally lost its chief source of wealth, the sale of damyo commodities. But few of the old firms sustained the shock, most of them going into bankruptcy. Thus, fifty years ago Osaka had to begin its career all over again. This time it concentrated its main attention on manufacturing industries, and although it has ceased to be the storehouse of the nation's rice, it was given the Imperial Mint and made the storehouse of the nation's gold.

MODERN OSAKA

The city of Osaka stands on a broad plain midway between Kyoto and Kobé, covering the southeastern corner of the province of



MR. SHIRO IKEGAMI, MAYOR OF OSAKA

Settsu, facing the island of Awaji and the gulf of Osaka. Behind the city rise the distant peaks of Mount Ikoma and Mount Katsuragi in the east, with the ranges of Izumi soaring away northward. Osaka is well equipped with what geographers regard as the important factors of a city's composition—rivers, sea-front, and rich, alluvial soil outside. The atmosphere is not too humid and the rainfall not excessive, so that life there is fairly comfortable the year round. Occupying, as it does, the centre of the Empire for national communication, Osaka becomes a vital point in commerce and industry. The streets and canals of Osaka are thronged with busy multitudes of people, numbering 1,400,000

in all. On approaching the city one sees innumerable tall factory chimneys sending forth clouds of black smoke, but on entering the city these establishments are found to be mostly of one story, on account of frequent earthquakes. Through the dense smoke loom up the picturesque hills and mountain peaks in the shadowy background, while the numerous canals and busy water life remind one of Amsterdam or Venice. This network of canals, laden with barges and boats of every sort and description, relieves the streets of pressure caused by the endless traffic in goods and materials between the thousands of mills and factories. The bridges of Osaka number more than 450, most of them of wood, though the Tenjin Bridge over the River Yodo is of steel, 780 feet long. The stores and shops of Osaka seem to be also workshops and warehouses, as the process of production is everywhere in evidence. Clerks, designers, artisans, packers, carters, sellers, and buyers all seem so hopelessly mixed up that the wonder is how they ever manage to evolve anything out of the apparent chaos. One is, indeed, reminded of the cities of the ancient world before the days of modern capitalisation and centralisation of industrial energy, when division of labour had not been accurately worked out. Here one sees people working at making umbrellas or fans; there is a shop where they are producing or decorating pottery; next comes an emporium of cotton fabrics, or rugs or brushes or leather goods, all made and sold on the same premises. And methods and implements are as various as occupations. On the streets are men pulling heavy loads on carts to the wharf or depot, while within doors are men in loincloths working modern sewing machines. Side by side are ancient weavers and the most modern looms; the post office,



A VIEW OF KITA WARD, SHOWING WATANABE BRIDGE. PROMINENT IN THE PICTURE IS THE SUPREME COURT BUILDING



YEBISU-BASHI DISTRICT, OSAKA, SHOWING UP-TO-DATE ELECTRIC ADVERTISING — SENNISHIMAYE, IN FRONT OF THE RAKUTENCHI AND ASHIBE CLUB HRESTLING — SHIN-SAI-BASHI, ICHOME — VIEW TO THE SOUTH FROM SHIN-SAI-BASHI BRIDGE, IN THE SHOPPING CENTRE

the telephone, and the electric car beside the courier flying along the street; the ancient handcart and the pedlar with his merchandise on his back. Every one is busy—a delirium of labour seems to pervade the population. In matters of education, public health, communications, lighting, harbour works, water system commerce, and industry Osaka has made remarkable progress, all of which will find appropriate mention in the proper place.

of self-government was accorded to Osaka. The city was divided into 548 streets, which increased to 620 a little later. Subsequently the city was divided into four wards with 903 streets. When self-government was finally conceded to cities, Osaka established a municipal office, a mayor and attendant officials were appointed, and a modern system of city administration began. The mayor has under him two deputy mayors, a treasurer, and an

the construction of an adequate system of waterworks. The old system which was a serious menace to the public health, was done away in 1887, and great improvements were inaugurated, resulting in the introduction of a thoroughly modern system of waterworks with all sorts of preventive measures against disease. At present the densely populated city is regarded as quite satisfactory from a sanitary point of view. Although completed



KITAHAMA, OSAKA. A SCENE NEAR THE STOCK EXCHANGE

CITY GOVERNMENT

IN no way, perhaps, has Osaka shown more modern development than in the promotion of municipal government. During the Tokugawa period the municipal government of the city was quasi-democratic, for in old Japan municipal management was always partly the business of the central authorities. There was a *Jodai*, who represented the Imperial Government, and under him was a *machibugyo*, or mayor, with subordinate officials representing the city. The citizens, through their representatives, were enabled to participate to some extent in the city administration. The city council men were known as *sotoshiyori*, and stood for three sections of Osaka, and with these the higher officials duly consulted. The old system of municipal administration, of course, came to an end with the beginning of the Meiji era, when Osaka came directly under the control of the Imperial authorities. In 1889 some measure

assistant treasurer, and there are eight departments of city government; namely, Commerce, Industry, Education, Miscellaneous Affairs, Waterworks, Engineering, Sanitation, and Accounts; while the Electric Bureau manages the city lighting system and a Harbour Committee attends to affairs pertaining to shipping. The city administration is directly under the supervision of the mayor, who enjoys a large measure of initiative, but he is bound to consult the aldermen's council in matters relating to finance. The Municipal Assembly, comprising 60 members, has to pass all important undertakings before they can be proceeded with. There are also ward councils, which manage affairs pertaining to their respective wards.

Under the present form of administration various improvements have been carried out in the city, or started with hopes of completion. Among the more important of these is

in 1901, the water system of Osaka soon proved inadequate to the rapidly increasing population, and in 1908 some 9,500,000 yen more was expended in extensions, the present supply being sufficient for a population of 2,000,000 people.

Osaka has, moreover, an extensive mileage of tramways, with satisfactory income and management. This service has been a municipal undertaking from the outset. Though the mileage is not large as compared with Tokyo, the passenger receipts are about 10,000 yen a day throughout the year. There is great need for further extension of tram lines, but the streets of the city are too narrow to allow this, and the authorities may have to depend on conflagrations to widen the streets sufficiently to permit their plans to be carried out. It will take about 18,000,000 yen to complete the tramway system. Further works to be carried out consist of construct-

ing a new harbour for the city. Harbour works have been under way since 1897 at a contemplated cost of 20,000,000 yen, but owing to increased price of labour and material a further 10,000,000 has been added, but it will require considerable time yet before the undertaking is completed. Already a good deal of ground has been reclaimed and two large stone breakwaters have been constructed, but Osaka is not a natural harbour like Kōbe, and the work is very difficult and uncertain. Warned by the outbreak of virulent epidemics, Osaka undertook to put in a modern system of sewerage works to be completed in ten years from 1911, at an estimated outlay of 4,500,000 yen, one-third of which was to come from the national treasury, and the work is still in progress. Osaka is also doing something for education, especially in the way of technical schools, and there are some good libraries, many temples, shrines, and Christian churches. There are fifteen theatres in the city, with pleasure resorts in plenty, and also a fine museum which is at once a gallery of the fine arts and an exhibition of the manufactures and products of the district.

FINANCE

THE ordinary revenue of Osaka amounts to about 20,000,000 a year, and is usually exceeded by the expenditure, which has sometimes to be met by loans. The accompanying table indicates sources of revenue and items of expenditure for 1915.

Owing to loans contracted for such enterprises as harbour-works, electric tramways, waterworks, and sewerage the debts of the municipality of Osaka now amount to as much as 70,000,000 yen, of which about 33,300,000 was issued abroad. According to the plans of the city administration these loans are to be redeemed between 1923 and 1942 with funds from taxation, electric railways, and harbour dues.

INDUSTRIES AND TRADE

It was not until after the beginning of the Meiji era that Osaka showed any remarkable development as an industrial centre, but the superior advantages it possessed in the way of communications and transportation, as well as its central location naturally lent impetus to the city's industrial progress. The convenient factory sites afforded by its extensive level environs have been eagerly bought up and utilised by masters of industry, both native and foreign. As a manufacturing and industrial centre Osaka has out-distanced all its rivals on this side of the Pacific, and has been called "the Manchester of Japan," as its

| SOURCES OF REVENUE | REVENUE | EXPENDITURE |
|-----------------------|------------|-------------|
| | Yen | Yen |
| Taxes..... | 3,210,000 | 1,995,000 |
| Waterworks..... | 1,482,000 | 652,000 |
| Wards..... | 465,000 | 465,000 |
| Electric trams..... | 4,168,000 | 1,885,000 |
| Tram laying..... | ..... | 2,773,000 |
| Tram stores fund..... | 1,314,000 | 1,306,000 |
| Harbours..... | 185,000 | 80,000 |
| Harbour-works..... | 267,000 | 267,000 |
| Other works..... | 683,000 | 683,000 |
| Trusts business..... | 6,000 | 6,000 |
| Sewerage .. | 507,000 | 507,000 |
| Loans..... | 6,747,000 | 5,716,000 |
| <i>Total</i> | 19,034,000 | 16,335,000 |

chief manufacturing staple is cotton. Enormous spinning mills raise their towering chimneys everywhere within and without the city, and, in addition, there are other factories of vast extent and capacity, turning out textiles in silk, wool, cotton, while others producing chemicals, fertilizers, brushes, carpets, bicycles, with great copper smelting and refining works, engineering works, type foundries and establishments are too numerous to mention. Factories employing 50 hands and over now number as many as 14,105, an increase of more than 1,500 a year for the last few years, while the number of factory workers in the city is 162,217, represented in the table below.

It is not too much to say that almost every form of industrial enterprise may be found at Osaka, either on a large or small scale, and side by side with its industrial progress have grown up great banking corporations that have enormous influence in the financial circles of the Empire. Houses like the Sumitomo, the Fūjia, Konoike, and Kuhara are well known throughout the world. The value of the annual output of Osaka factories is in the vicinity of 300,000,000 yen. The Osaka Clearing House represents transactions totalling over 3,400,000,000 yen annually.

In trade, too, Osaka shows remarkable development. The total tonnage of ships entering Osaka harbour has more than doubled in recent years. In 1915 exports leaving Osaka amounted in value to 93,822,636 yen, while the total value of imports was 50,610,954 yen, or about twice the volume of ten years ago. The table on the next page will indicate the progress of foreign trade with Osaka for the last fifteen years, at intervals of five years for the sake of comparison.

These figures reveal an astonishing growth for a Japanese city, and the same progress is going on in various centres of the Empire. The most of Osaka's trade is with China, Korea, and Asia generally, which takes over 90,000,000 yen' worth of her total exports and represents nearly 43,000,000 yen of her imports. The city contains the head offices of the Osaka Shosen Kaisha, one of the nation's great steamship companies. Judging by the present rate of development Osaka will in the near future eclipse in population and trade, as it does already in industry, all other cities of the Empire. Osaka has succeeded in impressing on the whole Empire the lesson that a realisation of industrial development is the primary factor in achievement and the preservation of national inde-

| INDUSTRIES | FACTORIES | WORKERS |
|----------------------------|-----------|---------|
| Dyeing and weaving..... | 1,951 | 78,827 |
| Machinery..... | 840 | 9,157 |
| Ship and car building..... | 57 | 4,179 |
| Metallurgical works..... | 4,141 | 21,180 |
| Chemical works..... | 1,025 | 9,499 |
| Kilns..... | 1,064 | 10,730 |
| Combustibles..... | 56 | 3,184 |
| Hides and leather..... | 99 | 1,450 |
| Comestibles..... | 3,005 | 8,101 |
| Miscellaneous..... | 1,846 | 14,907 |
| Special..... | 23 | 1,003 |
| <i>Total</i> | 14,107 | 162,217 |

| YEAR | EXPORTS | IMPORTS | TOTAL |
|-----------|------------|------------|-------------|
| | Yen | Yen | Yen |
| 1900..... | 9,626,595 | 9,741,437 | 19,368,032 |
| 1905..... | 55,938,208 | 18,499,831 | 74,438,039 |
| 1910..... | 53,482,450 | 30,695,577 | 84,178,027 |
| 1915..... | 93,822,636 | 50,610,954 | 144,433,590 |

pendence, dissipating forever the antiquated notion that mercantile life is to be held contemptible. The political and military classes no longer look down on centres like Osaka as merely sordid and materialistic, but as standing for the vital factors of national progress, producing and possessing both the wealth and means to accomplish great achievements.

OSAKA DOJIMA RICE AND PRODUCE EXCHANGE, LIMITED

THE control of a vast amount of business, transacted in the great commercial centre of Osaka, lies in the hands of the Osaka Dojima Rice and Produce Exchange, Limited, an institution which fulfils the same functions at Osaka as the Tokyo Rice and Produce Exchange, Limited, does at the capital. These concerns bear the same relation to commerce in rice, grain, and other produce, as the big stock exchanges bear to trading in stocks and shares and bonds. The Osaka Dojima Rice and Produce Exchange, Limited, is, however, one of the very oldest institutions of its kind in Japan. Speculation in rice and produce actually began in Japan as far back as the Kyoko era (1650), and continued right down to modern times, when the necessity for organisation and control became apparent. A kind of rice and produce exchange was started

in Osaka in April, 1871. It was known as the *Kome Kaisho*, or "meeting place of rice dealers," and became the recognised centre of all speculative operations. In December, 1875, the office of the Kome Kaisho was built at No. 55 Dojima, Hamadori, Itchome, Osaka. This institution subsequently developed into the present exchange. Application was made to the Imperial Government for permission to incorporate such a body, under the laws governing stock exchanges, the applicants being the leaders of the Kome Kaisho. The capital of the new organisation was set at Yen 75,000, divided into 750 shares. The application was granted, and the Exchange started operations under its new constitution. In 1895 the name of the Exchange was changed to its present title and the capital was increased to Yen 150,000, divided into 3,000 shares of Yen 50 each. The transactions of the Osaka Dojima Rice and Produce Exchange, Limited, rapidly increased in number and value, and from time to time it was found necessary to augment the capital, which to-day is Yen 2,000,000. The guiding spirit of the Exchange through its most difficult periods, and also in the days of its greatest success, was its late President, Mr. Tokei Takakura. Mr. Takakura died in September, 1917, and by his death the whole commercial community of Osaka sustained a very severe loss.

The other principal officers of the Osaka Dojima Rice and Produce Exchange, Limited, are: Directors, Messrs. Masatoshi Fujino, Yasutaro Motode, and Yahei Uyeda; Manager, Mr. Buye Yoshida; Auditors, Messrs. Seijiro Gion, Tommichi Hamazaki, and Keisuke Miyazaki. The exchange is located in a capacious building at No. 39 Dojima, Itchome, Kita-ku, Osaka.

OSAKA MERCANTILE AGENCY

WHAT Bradstreet and R. G. Dun & Co. are to the Anglo-Saxon business world, the Shogyo Koshinsho, or Mercantile Agency, is to Japan. This institution fulfils a highly important function in the business and commercial life of the country, and its work should be of considerable interest to foreign traders who wish to be kept well posted regarding commercial operations in Japan, and the credit ratings of concerns with whom they wish to do business. The need for such an agency was recognised very early in the development of Japan's commercial field, and as a matter of fact the Shogyo Koshinsho is the oldest mercantile agency in Japan, having been established in 1892. Such agencies had been in existence for many years in Europe and America. Their operations were studied by the Japanese, and it was realised that there was ample scope for such an institution in a great commercial centre like Osaka. Consequently four of the bankers of that city conjointly established the Shogyo Koshinsho, which makes the reasonable claim that it was the original medium through which credit inquiries and similar work was started in Japan. Since that time the Shogyo Koshinsho has amply justified the ideas of its founders. It has attained an importance in Japan and abroad that can not be questioned.



OSAKA DOJIMA RICE AND PRODUCE EXCHANGE, LIMITED



FINE OSAKA PREMISES OF SHOGYO KOSHINSHO (MERCANTILE AGENCY)

From the original branch at Osaka it has spread itself all over Japan and China, and moreover, through the introduction of home and foreign consuls and the Yokohama Specie Bank it communicates with Bradstreet's, Seyd & Co. of England, and other similar foreign organisations, besides being associated with kindred concerns established in other cities in Japan.

The Shogyo Koshinsho conducts a business precisely similar to that of other mercantile agencies abroad, furnishing reports on the means, credit rates, characters, and business affairs of bankers, merchants, and industrial companies. Reports are supplied in confidence to subscribers, who may be of one of four classes, Special, First, Second, and Third class, the annual subscription fees ranging from Yen 200 to Yen 60 per annum. The agency collects a variety of information of general interest to the business world, besides supplying copies of the daily bulletins of the Bank of Japan, regarding exchange, specie movements, etc., furnishes reports on promissory notes and bills of exchange issued, and makes special enquiries at home and abroad, according to request. As an indication of the confidence which the Shogyo Koshinsho has established, it may be said that the Osaka and local district courts have appointed the agency appraisers of movables and immovables that come within the notice of the courts in legal actions, and members of its staff have been appointed examiners of joint-stock companies by the Osaka Local Court, on

various occasions, the authorities being quite satisfied with the impartiality and correctness of the agency's dealings. In the first seven months of its existence the Shogyo Koshinsho furnished 1,200 reports on enquiry, and 19 reports on lawsuits. To show the

growth of the operations of the agency it is only necessary to say that now it is furnishing annually over 150,000 reports for enquirers, 62,000 reports on lawsuits, over 17,000 daily reports, and 130,000 sets of registrations. The Shogyo Koshinsho is in a position through its correspondents and associated agencies to conduct investigations in the United States, Canada, Mexico, Cuba, France, England, Italy, Switzerland, Spain, Portugal, Holland, Belgium, Denmark, India, Australia, Russia, Roumania, and Egypt. The principal officers of the Shogyo Koshinsho are: Managing Director, Mr. Motoyoshi Makino; Manager, Mr. Naomi Abe; Auditor, Mr. Y. Ashida; Adviser, Mr. S. Toyama; Secretary and Superintendent of the Investigation Department, Mr. T. Shibuya; Superintendent of the Recording Department, Mr. Y. Hata; Superintendent of the Local Department, Mr. M. Mitsuoka; Superintendent of the Foreign Department, Mr. T. Tashima, and Treasurer, Mr. S. Taki. The head office of the Shogyo Koshinsho is at 15 Kitahama, 3-chome, Osaka. There are also offices at Kobé, Kyoto, Nagoya, and Moji, with sub-offices established in about twenty-five other centres of commercial importance. Moreover, through its association with the Tokyo Koshinsho, the agency has representation in many outlying centres, including Shanghai.



A STREET BAND ADVERTISING A MOVING PICTURE SHOW

XXXIV. BANKING, FINANCE, AND INSURANCE

(OSAKA AND KOBÉ SECTION*)

BANKING

THE THIRTY-FOURTH BANK, LIMITED

UNDER the National Bank Laws, which led to the formation of so many financial institutions about forty years ago, the Thirty-fourth National Bank was formed at Osaka, in March, 1878, under a time charter of twenty years' duration. When this charter expired the Thirty-fourth Bank became for a time a private concern, but later on, after several amalgamations, it was registered as a joint-stock, limited liability bank, and to-day it occupies a position of great importance. A vigorous policy has always been associated with the conduct of the Thirty-fourth Bank, Ltd. Shortly after the expiration of its original charter it amalgamated with the 121st Bank, and since then has absorbed the Nippon Churitsu, Nippon Kyodo, and the Yugyo Banks, the capital rising to Yen 10,000,000, which was the figure on June 30, 1917. At the date of writing it is planned to absorb the Amagasaki Bank, and if this is carried out the capital will become Yen 10,300,000, all fully paid up. The Thirty-fourth Bank, Ltd., has reserves amounting to Yen 4,350,000, and if those of the Amagasaki Bank be added this will raise the sum to Yen 4,460,000. The deposits on June 30, 1917, totalled Yen 73,000,000, and the volume of business handled in the six months reached the large figure of Yen 3,872,000,000.

From May, 1907, the Thirty-fourth Bank, Ltd., became the agent of the International Banking Corporation, and in May, 1910, the Hongkong & Shanghai Banking Corporation, Ltd., appointed the head office at Osaka, agent for that important commercial centre. It was at that time that the Thirty-fourth Bank, Ltd., began to conduct a foreign exchange business. From time to time the bank has extended its foreign relations, and, furthermore, it has taken a very active part in the industrial development of Osaka. An important move was made in April, 1912, when it was decided to supply funds at low rates of interest to industrial concerns. The

*The institutions enumerated in this section are identified with the cities of Osaka and Kobé. Others located in Yokohama and Tokyo will be found in the section devoted to them, page 90.

value of this assistance to industry in such a great manufacturing city as Osaka can not be overestimated, and the Thirty-fourth Bank, Ltd., may justly claim to have recognised the

Electricity Co., Ltd. The head office of the bank is at Koraibashi, 4th Street, Higashi-ku, Osaka. There are six branches in the same city, and one each at Tokyo, Kyoto, Kobé,



HEAD OFFICE OF THE THIRTY-FOURTH BANK, LIMITED, OSAKA

need of such accommodation, well ahead of most other banks. From the same period the bank began the trustee business of issuing debentures for industrial concerns. At present such investments are being made in the case of five large concerns, the amount taken up by the bank being over Yen 10,640,000. The latest undertakings in this line were the issues of the Dunlop Rubber (Far Eastern) Co., Ltd., and the Kinugawa Water Power

Hyogo, Amagasaki, Himeji, Itami, Hiroshima, Tokushima, Nara, Taihoku, and Tainan. In addition, the bank is in correspondence with 4,286 banks and financial houses in Japan and abroad, which gives it a remarkably strong influence in all local and foreign business.

THE KAJIMA BANK, LIMITED

THERE are very few banks in the world that can claim a continued existence of three



HEAD OFFICE OF KAJIMA GINKO (THE KAJIMA BANK, LTD) AT OSAKA

hundred years. This is the record of the Kajima Ginko of the Osaka Prefecture, an institution whose history is as interesting as any that may be found in the prosaic story of financial houses. The Kajima Bank was known over three hundred years ago in mediæval Japan under the name of the Kajimaya. It then attended to the interests of the Tokugawa shogunate as accountants, and was also engaged for centuries in the exchange of old gold and silver bullion and paper currency. As occasion arose, also, the Kajimaya acted as financiers to the shogunate in the stormy times, right down to the Restoration. From the commencement of the Meiji era (1867) the Kajimaya engaged solely in exchange business for some years. When new ideas had spread through Japan, the Kajimaya decided on reorganisation on modern lines, and in December, 1887, applied for permission to establish the Kajima Bank. This was granted, and the modern business was started in January, 1888. Naturally such an ancient institution did not lack public confidence, and with the broadening of its charter business grew rapidly, especially when Osaka and the district developed such commercial and industrial activity. The Kajima Bank was entrusted by the Imperial Treasury with the handling of public funds, and later on permission was obtained for making investments with debentures as security. When the Bankers' Syndicate was formed the Kajima Ginko became a member, and enlarged its foreign operations. On November 3, 1916, the last stage in the evolution of this old bank was reached when it became a joint-stock company, with a capital of Yen 5,000,000 fully paid up. Then under special contract with the Yokohama Specie Bank, foreign drafts were handled. The reserves of the Kajima Bank amounted to Yen 1,800,000 at the end of August, 1917. The head office is at Tosabori-dori, First Street, Osaka. There are six branches in Osaka, and two at Tokyo, with other branches distributed as follows: Kyoto, Kobé, Okayama (2), Fukuyama, Hiroshima, Tokuyama, Makikata, Ibaraki, Ikeda, Amagasaki, and Takatsuki. The Presiding Director is Mr. K. Hiro-oka; Managing Director, Mr. Y. Hoshino; Director, Mr. S. Gion, and Manager, Mr. S. Kawakami. Cable address, "Kajimagink," Osaka, or Kobé; code A. B. C., 5th edition. The balance sheet for the period ended August 31, 1917, follows.

THE OMI BANK, LIMITED

IN 1894 some wealthy merchants of Shiga Prefecture founded the Omi Ginko with a modest capital of Yen 500,000. The new bank had its periods of prosperity and adver-

| CREDIT | | DEBIT | |
|---|--------------------------|--|--------------------------|
| | Yen | | Yen |
| Loans against securities..... | 428,601.13 | Capital..... | 5,000,000.00 |
| Loans against drafts..... | 37,781,502.63 | Reserve..... | 1,800,000.00 |
| Temporary overdrafts..... | 3,396,094.26 | Public funds on deposit..... | 2,335,922.75 |
| Call loans..... | 5,010,000.00 | Current deposits..... | 21,506,929.72 |
| Promissory notes..... | 13,272,795.82 | Special deposits..... | 14,036,381.65 |
| Bills drawn against shipments . | 386,741.17 | Deposits on notice..... | 3,072,982.00 |
| Loans to other banks..... | 615,633.49 | Fixed deposits..... | 32,554,949.64 |
| Acceptance of payments countermanded..... | 1,415,481.53 | Other special deposits..... | 2,625,522.82 |
| Deposits..... | 986,267.05 | Due to other banks..... | 1,520,536.75 |
| Foreign loan bonds..... | 5,348,000.00 | Acceptances of payment..... | 1,415,481.53 |
| Public loan bonds..... | 8,080,390.34 | Interest not yet paid..... | 534,269.92 |
| Debentures..... | 868,236.00 | Discount fee not yet passed.... | 337,846.93 |
| Shares..... | 331,538.90 | Foreign drafts sold..... | 353,199.52 |
| Land, buildings, and furniture. | 850,168.91 | Net profit (including Yen 81,942.40 brought forward from last period)..... | 307,872.00 |
| Other properties..... | 224,481.10 | | |
| Cash on hand..... | 8,052,763.38 | | |
| Foreign drafts bought..... | 353,199.52 | | |
| Total..... | Yen 87,401,895.23 | Total..... | Yen 87,401,895.23 |

sity during the first few years of its existence, but on the whole it made steady progress, and when the great industrial and commercial expansion of Japan took place, the bank's business developed to a remarkable extent, until to-day it has a capital of Yen 10,000,000 and conducts twenty-one branches. During the first half of 1917 the deposits with the bank totalled over Yen

65,000,000, and the credit given by way of overdrafts and loans was in excess of Yen 53,000,000. Drafts put through the Clearing House during 1916 represented a value of over Yen 1,149,000,000, and the money handled by the Omi Bank in the same period exceeded Yen 5,674,000,000. With the outbreak of war, trade and commerce witnessed a strong revival, especially at



HEAD OFFICE OF OMI GINKO (THE OMI BANK, LTD.), OSAKA

Osaka. This activity placed a strong demand on monetary accommodation, and the necessity for ready financing was especially urgent in view of Japan's operations in foreign markets. The Omi Bank recognised the situation and has done its best to supply commercial and industrial concerns with funds, while at the same time accepting foreign and domestic loans as a member of the Japan Banks' Syndicate. Banks that have over a hundred millions of yen in deposits and at credit are not rare, so that the Omi Bank's total deposits and loans (Yen 118,000,000) for the first half of 1917 are not exceptional, but when such a figure is set in proportion against the amount of capital actually paid up, it can readily be seen how strenuously this institution has performed its functions as a backer of trade and commerce. The total deposit is over

sixteen times the paid-up capital of Yen 4,000,000, and the total credit given exceeds the same figure over thirteen times. Such a state of affairs is seldom seen in the statistics of other banks, except those of a special nature. The average amount of drafts put through the Clearing House during the first half of 1917, for 35 banks in Osaka, was 28 in number daily, while the Omi Bank put through an average of 135. From such figures the confidence in the Omi Bank, and the extent of its operations may easily be gauged. This institution is, furthermore, closely connected with the industries of cotton yarn and cotton piece goods, and with the wholesale dry goods merchants generally. This is one of the specialties of its operations and it gives the Omi Bank a firm basis among the trading community.

In the latter half of 1917 the capital was increased to Yen 10,000,000, of which Yen 5,500,000 was paid up. Foreign drafts, debentures with security, and investments in accordance with the Investment Law began to be handled by the Omi Bank. This was a big development, and the progressive policy of the institution has resulted in a large increase in the deposits, and in the credit and reputation of the bank.

From the first half of 1912 the Omi Bank has paid dividends of not less than eight per cent per annum, and more frequently nine per cent. For the six months ended June 30, 1917, a net profit of Yen 362,852 was realised, which is equal to 18 per cent of the paid up capital. It is confidently expected that the dividends will be maintained at nine per cent, and quite probably that figure will be exceeded. The head



PROMINENT BANKERS OF KOBÉ AND OSAKA

(Upper Row, Left to Right) Messrs. K. BANNO, Managing Director, Yamaguchi Bank, Ltd.—A. E. IRVING, Manager, International Banking Corporation—KENTATSU AIKO, Managing Director, Naniwa Bank, Ltd. (Middle Row) Y. HOSHINO, Managing Director, Kajima Bank—MASAO MATSUKATA, President, Naniwa Bank, Ltd.—K. YAMAGUCHI, President, Yamaguchi Bank, Ltd. (Lower Row) T. HIRAGA, President, Fujimoto Billbrokers Bank, Ltd.—ICHTARO TANIMURA, Managing Director, Fujimoto Billbrokers Bank, Ltd.—Y. YOKOTA, Managing Director, Fujimoto Billbrokers Bank, Ltd.

| ASSETS | | LIABILITIES | |
|---|--------------------------|----------------------------------|--------------------------|
| | Yen | | Yen |
| Loans on securities..... | 193,584.18 | Capital..... | 4,000,000.00 |
| Loans on drafts..... | 20,269,325.05 | Legal reserve..... | 690,000.00 |
| Overdrafts..... | 5,348,350.39 | Staff pension fund..... | 10,000.00 |
| Call loans..... | 2,900,000.00 | Fixed deposits..... | 30,184,204.97 |
| Drafts discounted..... | 23,928,029.41 | Current deposits..... | 19,336,390.69 |
| Documentary drafts discounted..... | 625,742.45 | Special current deposits..... | 13,579,253.63 |
| Deposits with other banks..... | 2,477,866.02 | Special deposits..... | 972,316.82 |
| Acceptances of payments with- drawn..... | 136,748.85 | Deposits on notice..... | 1,334,174.94 |
| Deposits..... | 1,074,305.06 | Deposits from other banks..... | 5,267,343.28 |
| National loan bonds..... | 4,252,107.17 | Acceptances..... | 136,748.85 |
| Russian Exchequer bonds..... | 1,800,000.00 | Remittance drafts payable..... | 56,359.59 |
| British Exchequer bonds..... | 1,599,000.00 | Dividends unpaid..... | 1,520.10 |
| Various debentures..... | 380,612.50 | Interest unpaid..... | 28,617.29 |
| Real estate, buildings, etc..... | 630,785.82 | Discount fee not yet passed..... | 267,163.89 |
| Cash in hand..... | 10,610,495.18 | Net profit for the half-year... | 362,825.03 |
| <i>Total.....</i> | <i>Yen 76,226,952.08</i> | <i>Total.....</i> | <i>Yen 76,226,952.08</i> |

office of the Omi Bank is at No. 35-37 Bingo-machi, Higashi-ku, Osaka. There are twenty-one branches situated in Osaka, Kyoto, Tokyo, Kobé, Nagoya, Otsu, and other places in Shiga Prefecture. The principal

officials of the bank are: President and Director, Mr. K. Ikeda; Directors, Messrs. K. Seo, S. Nishida, F. Abe, C. Ito, and D. Shimogo. The Auditors are Messrs. Y. Kitagawa and I. Abe. Above appears the

balance sheet for the period to June 30, 1917. The profit for the half-year was divided as follows: To legal reserve, Yen 100,000; bonus, Yen 32,300; staff pension fund, Yen 10,000; dividend at nine per cent, Yen 172,500; carried forward, Yen 48,052.03.

SUMITOMO BANK, LIMITED

THIS old institution may fairly claim to be older by four years than the Bank of England, for it really came into existence at the same time as the Sumitomo firm itself, which was in 1690. In its early days the Sumitomo firm was advancing loans to the daimyos and feudal lords under the shogunate, and to the merchants of Osaka, which city was then rapidly advancing to its present position as the mercantile centre of the Empire. Of course, since those early days the institution has undergone many changes, but the control has always remained with the Sumitomo family. To-day the affairs of this bank are directed by Baron Sumitomo, President; Kwankichi Yukawa, Managing Director; and Messrs. Masaya Suzuki and Kinkichi Nakada,



THE SUMITOMO BANK AND SUMITOMO GENERAL HEAD OFFICE AT OSAKA

The Auditors are Messrs. Teigo Iba and Munio Kubo. There are three managers, Messrs. Shigetaro Uyeno, Shinichi Yoshida, and Norihiko Yatsushiro. The subscribed capital is Yen 30,000,000, of which Yen 18,750,000 has been paid up. The reserves total Yen 2,100,000 and the deposits amount to the large sum of Yen 180,270,000, as against loans of Yen 170,600,000.

In 1895, the firm built upon its old general financiers' business a modern banking system with a capital of one million yen, under the title of the "Sumitomo Bank." Since that date the bank has made steady progress, as may be seen at a glance from the statement at the top of this page.

The private bank was converted into the Sumitomo Bank, Ltd., in April, 1912, and the figures since then are shown in the second table.

Many important branches have been established, and the Foreign Exchange Department was opened in 1905, with numerous correspondents in the principal centres of the world. When the bank was incorporated under the Japanese law as a

| DATE | DEPOSITS | LOANS | RESERVES |
|--------------------|------------|------------|-----------|
| | Yen | Yen | Yen |
| Dec. 31, 1895..... | 882,000 | 2,142,000 | 0 |
| Dec. 31, 1899..... | 7,486,000 | 8,164,000 | 850,000 |
| Dec. 31, 1903..... | 19,468,000 | 16,220,000 | 1,950,000 |
| Dec. 31, 1907..... | 32,596,000 | 26,539,000 | 3,400,000 |
| Dec. 31, 1911..... | 44,348,000 | 35,391,000 | 4,800,000 |

| DATE | DEPOSITS | LOANS | RESERVES |
|--------------------|-------------|-------------|-----------|
| | Yen | Yen | Yen |
| Dec. 31, 1912..... | 51,937,000 | 43,909,000 | 200,000 |
| Dec. 31, 1915..... | 86,123,000 | 75,014,000 | 1,100,000 |
| June 30, 1917..... | 156,228,000 | 139,048,000 | 2,100,000 |

joint-stock company in 1912, its capital was increased to 15,000,000 yen, the greater part of which was subscribed by the Sumitomo family. Another increase in capital was found necessary in order to keep pace with the rapid growth in its business. In July, 1917, therefore, an increase in capital by 15,000,000 yen was decided upon, and

public subscription was invited, with great success. The Sumitomo Bank, Ltd., occupies a foremost position in the banking system of Japan. The balance sheet for the six months ending June, 1917, appears on this page.

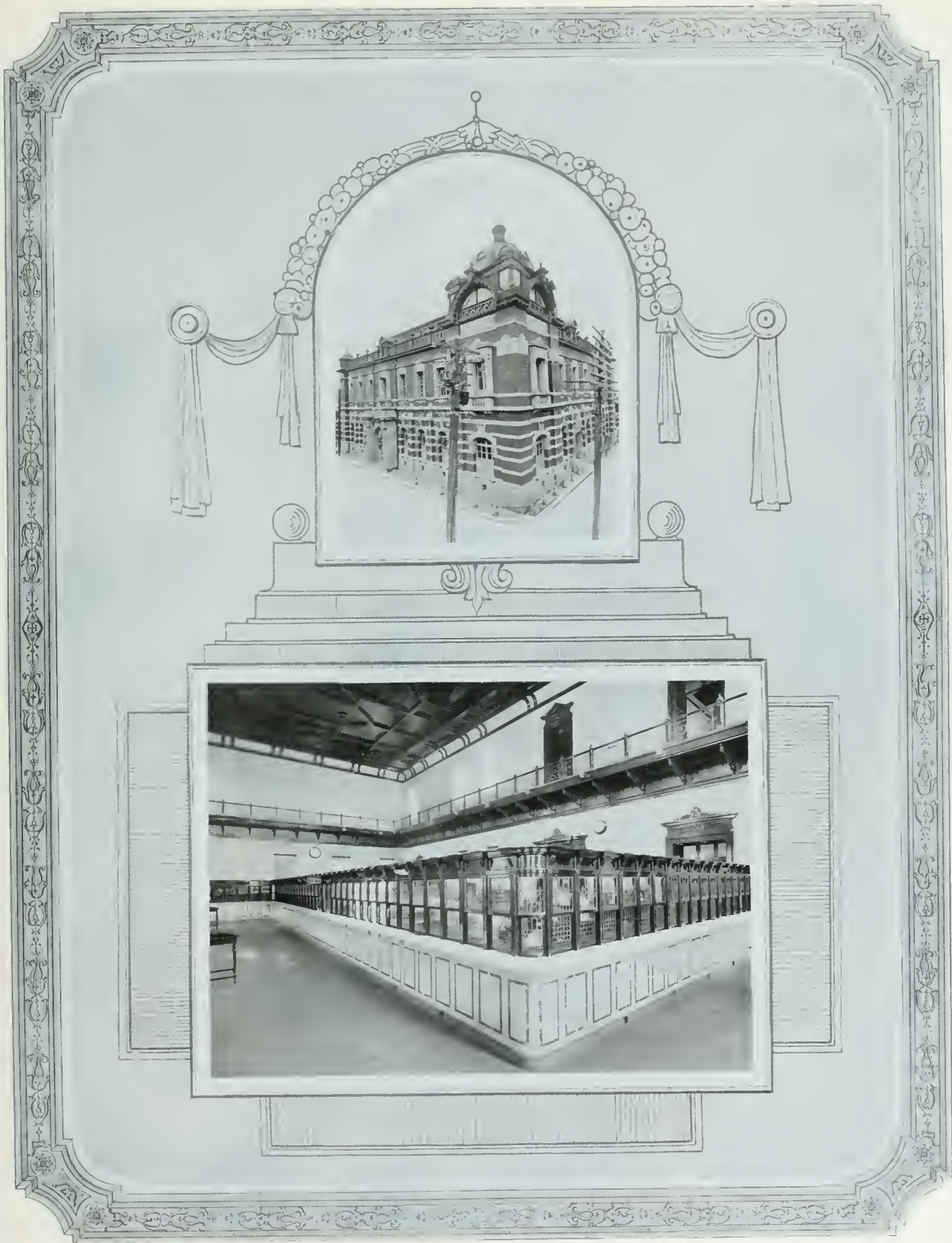
NANIWA BANK, LIMITED

THE record of the Naniwa Bank, Ltd., is one of rapid development to a position of first rate importance in finance in Japan. It was originally the 32nd National Bank, formed in February, 1878, under the National Bank Laws, but when the business term expired in January, 1898, an amalgamation was effected with the 5th National Bank, and the joint concern became the Naniwa Bank, Ltd., with a capital of Yen 1,800,000. The 5th National Bank had been the property of Prince Shimazu and his family, and after the amalgamation the Naniwa Bank continued to serve those private interests, but some time later the capital was increased to Yen 2,400,000, and the business circle was considerably widened, the bank beginning to exercise some influence in general financial affairs. Within the next three years three strong banks, the Osaka Meiji, Osaka Kyoritsu, and Osaka Shoko Banks were amalgamated and the capital became Yen 4,000,000. Subsequent to the Russo-Japanese War further extensions took place. The capital was made Yen 7,000,000, the Wakayama Bank was purchased, the Mitsui Bank's business through the branch at Wakayama City was turned over to the Naniwa Bank, Ltd., and the latter then established branches at many important centres in Japan. In 1914 the business of the Tennoji Bank was purchased. The entire capital of Yen 7,000,000 was paid up in January, 1916, and at once the shareholders agreed to double the capital. Under present arrangements the Bakan Shogyo Bank of Shimonoseki is to be amalgamated, and negotiations have been completed for the purchase of the Kyushu Jitsugyo Bank, these

| LIABILITIES | ASSETS |
|---|---|
| Yen | Yen |
| Deposits..... 156,228,874.15 | Loans, bills discounted and exchange purchased..... 135,548,577.47 |
| Exchange sold..... 1,373,779.80 | Customers' liability on foreign credits, acceptances, and guarantees..... 27,198,044.67 |
| Bills payable..... 864,039.70 | Account with the Postal Transfer Savings Office... 168,577.69 |
| Margin of exchange unsettled 249,210.30 | Government bonds..... 18,597,002.09 |
| Foreign credits, acceptances, and guarantees..... 27,198,044.67 | Municipal and other securities 2,496,850.00 |
| Due to other banks..... 2,394,795.13 | Due from other banks..... 594,596.31 |
| Due to foreign banks..... 624,580.02 | Due from foreign banks..... 948,509.13 |
| Rebate on bills not yet due.. 537,460.97 | Bank premises and furniture. 1,702,820.66 |
| Interest accrued on deposits. 909,480.96 | Real estates..... 21,053.82 |
| Subscribed capital..... 30,000,000.00 | Foreign currencies..... 7,871.13 |
| Reserve fund..... 1,600,000.00 | Capital unpaid..... 15,000,000.00 |
| Reserve for doubtful debts... 70,000.00 | Money at call and at short notice..... 3,500,000.00 |
| Pension reserve..... 50,000.00 | Cash in hand..... 18,368,298.36 |
| Dividends unpaid..... 111.98 | |
| Balance brought forward from last half-year..... 334,051.82 | |
| Net profit for the half-year.. 1,717,771.83 | |
| <i>Total</i> Yen 224,152,201.33 | <i>Total</i> Yen 224,152,201.33 |

PROFIT AND LOSS ACCOUNT

| Yen | Yen |
|--|--|
| To reserve fund..... 500,000.00 | By balance brought forward from last half-year..... 334,051.82 |
| To dividends..... 600,000.00 | By reserve for doubtful debts 70,000.00 |
| To reserve for doubtful debts 350,000.00 | By pension reserve..... 50,000.00 |
| To pension reserve..... 150,000.00 | By net profit for the half-year 1,717,771.83 |
| To bonus..... 55,000.00 | |
| To balance carried forward to next half-year..... 516,823.65 | <i>Total</i> Yen 2,171,823.65 |
| <i>Total</i> Yen 2,171,823.65 | |



THE HEAD OFFICE OF NANIWA GINKO (NANIWA BANK, LTD.), OSAKA



A SCENE IN THE BUSINESS SECTION OF OSAKA (HONMACHI-DORI, SANCHOME)

operations calling for a still further increase in capital.

It may be seen from this record of expansion how influential the Naniwa Bank, Ltd., has become. The shareholders of the banks absorbed are spread all over Japan, and amongst the principal shareholders are Prince Shimazu and his family, as well as many other influential persons. As one of the syndicate of eighteen leading banks of Japan, and by reason of its widespread connections throughout the country, the Naniwa Bank, Ltd., claims a leading position in the financial world, and undoubtedly it is one of the foremost institutions of western Japan.

Mr. M. Matsukata, President of the Naniwa Bank, Ltd., is the fourth son of Marquis Matsukata, who was the senior clansman for the Restoration. Mr. Matsukata studied political economy abroad, and returned to Japan in 1898. He was for some time Managing Director of the Naniwa Bank at Kobé, and upon the resignation of the presidency by Mr. N. Nagata, Mr. Matsukata succeeded to that position. He is a man of very likable disposition, and has a sound knowledge of the banking business. Others who have rendered valuable services to the institution are the late Mr. T. Toyama, the

first President; Mr. G. Nomoto, the second President; Mr. N. Nagata, ex-President, and Mr. K. Aiko, now the Managing Director. The proud position in which the bank stands to-day is due to their splendid services, and the substantial work done by the experienced staffs. The capital of the institution is Yen 14,000,000, and there are reserves of Yen 2,985,000. Deposits total Yen 82,686,000. At the last settlement of accounts a profit for the half-year of Yen 817,000 was shown. A dividend of nine per cent per annum was paid and Yen 164,000 was carried forward. Business transacted by the Naniwa Bank, Ltd., consists of current accounts, discounts, collections of drafts, agencies for other banks, and investments generally. It is in correspondence with the principal banks of Japan, and through the Yokohama Specie Bank it is now handling foreign drafts for London, Lyons, New York, San Francisco, Los Angeles, Hawaii, Sydney, Singapore, Bombay, Calcutta, and throughout China and Manchuria. The head office of the Bank is at Awajicho, 2nd Street, Higashi-ku, Osaka. There are branches in West, South, and North Osaka, as well as at Namba, Kujo, Tennoji, Tamatsukuri, Tokyo, Sakai, Wakayama, Nishinomiya, Kobé, Fukuoka, and Kagoshima. The head office is a handsome

new building, and all the branches are modern.

THE YAMAGUCHI BANK, LIMITED

HEAD OFFICE: 2 chome, Karamono-Machi, Higashiku, Osaka. Branches in Osaka: Nishi, Minami, Kita, Kyomachibori, Uemachi, Kohzu, Dohjima, Kujoh, and Namba. Other branches: Tokyo, Kyoto, Kobé, Okayama, and Mikage.

The origin of the business now conducted by the Yamaguchi Bank, Ltd., at Osaka goes very far back in the financial history of Japan. In the first year of Ganji (1864), in the time of the Tokugawa shogunate, the Yamaguchi Money Exchanger, or *Ryogaeya*, was formed, and carried on business for many years, long before the modern bank was thought of in Japan. The business was carried on by the 148th National Bank, which was established in 1879 with a capital of Yen 100,000. In 1888 the capital was increased to Yen 300,000, and when the bank's business term expired in 1898 under the old National Bank Act, the Yamaguchi Bank took over the business as a private concern, the capital being fixed at Yen 1,000,000. For some years the Yamaguchi Bank was conducted as a private partnership, but in May, 1917, a reorganisation took place, and a limited liability

company was formed with a capital of Yen 20,000,000, of which Yen 10,000,000 has been paid up. All descriptions of general domestic and foreign banking business are transacted. The confidence shown in the bank is best exemplified by the statement that deposits exceed Yen 88,000,000, and total resources Yen 100,000,000. (Nov., 1917.)

The Directors are: Messrs. Kichirobei Yamaguchi (President), Kanemichi Banno (Managing Director), Kamanosuke Sasaki (Managing Director), Chuji Machida, Katsujiro Iwai, and Kanjuro Tomonaga. The Auditors are Messrs. Kenshiro Yamaguchi and Ichigoro Hirase.

THE OSAKA SAVINGS BANK, LIMITED

This is one of the important savings banks of Japan, and operating in a great industrial centre like Osaka and adjoining districts, it is not surprising to learn that the Osaka Savings Bank, Ltd., conducts an enormous business. The bank was established in December, 1890, with a capital of Yen 100,000, which was increased in March, 1916, to Yen 500,000, in

500 shares of Yen 1,000 each. Originally the bank was described as a "savings deposits" institution, but in accordance with the

Savings Banks Law it now confines its business solely to the handling of ordinary savings. On September 25, 1917, the Osaka Savings



UMEDA STATION, OSAKA



THE FINE OSAKA OFFICES OF YAMAGUCHI GINKO



OSAKA CHOCHIKU GINKO (OSAKA SAVINGS BANK, LTD.): THE PREMISES OF THE KYOTO BRANCH—THE HEAD OFFICE AT OSAKA

Bank, Ltd., had 1,150,000 deposit accounts, representing a grand total of deposits of Yen 32,674,477. The officials of the bank are: Messrs. K. Yamaguchi (President), M. Hirase (Managing Director), S. Toyama (Director), and T. Taku and J. Ashida, Auditors. The head office is at No. 18 Fushimicho, 3rd Street, Higashiku, Osaka, and there are eight branches in that city and four in Kyoto. Following is the balance sheet as at June 30, 1917:

| ASSETS | | LIABILITIES | |
|---------------------------------|--------------------------|--------------------------------|--------------------------|
| | Yen | | Yen |
| Drafts credited..... | 1,006,400.00 | Capital..... | 500,000.00 |
| Drafts discounted..... | 187,749.07 | Legal reserve..... | 580,000.00 |
| Deposits..... | 9,716,787.76 | Special reserve..... | 1,220,000.00 |
| Russian Exchequer Bonds.... | 1,110,000.00 | Liquidation of property fund.. | 50,000.00 |
| Public loan bonds..... | 18,265,260.00 | Staff pension fund..... | 120,000.00 |
| Debentures..... | 976,310.00 | Ordinary savings..... | 30,146,520.90 |
| Shares..... | 294,412.50 | Interest unpaid..... | 51,609.01 |
| Fund for various purchases... | 20,000.00 | Discount fee not passed..... | 23,869.27 |
| Land, building, furniture, etc. | 617,551.37 | Net profit for term, including | |
| Cash on hand..... | 838,265.94 | Yen 119,619.25 brought for- | |
| | | ward..... | 340,737.46 |
| <i>Total.....</i> | <i>Yen 33,032,736.64</i> | <i>Total.....</i> | <i>Yen 33,032,736.64</i> |

FUJIMOTO BILLBROKERS BANK, LIMITED

THE Fujimoto Billbrokers Bank, Ltd., of Osaka, is one of the leading institutions of its kind, and also a special development of the banking system of Japan, playing an important rôle in the stimulation of the money market and in the financing of industries. The business originated with a private firm, known as "Fujimoto Billbroker," which was

established by Mr. Seibei Fujimoto in Osaka, and commenced operations on May 1, 1902. This firm was the pioneer of such undertakings and the business transacted was the forerunner of bill broking in Japan, the special function of which is to act as the intermediary for bill discounting and short term loans, that is "call money" and "call loans" as handled by the old established brokerage houses of Lombard Street, London. The introduction of the English terms, "bill broker," "call money," etc., into the title and account of the firm, and their use in the daily monetary transactions of the business people of the big industrial and commercial centres of Japan, irresistibly excited the curiosity of traders, and yet it was not an easy task to lead them to understand and utilise this newly formed agency. Fortunately the firm found itself in harmony with the demand of financial circles. The business gradually expanded, and in the course of a few years, this simple brokerage firm came to be a retail dealer in bills, employing more capital and securing more extended credit. Through the era of severe monetary crisis which was experienced during the Russo-Japanese War and throughout the



FUJIMOTO BILLBROKERS BANK, LIMITED: TOKYO BRANCH (KABUTO-CHO, NIHONBASHI-KU)—NAGOYA BRANCH (5-CHOME, SHIMADA-CHO)—HEAD OFFICE, OSAKA

postbellum boom which was its reaction, the firm was steadily growing, and in October, 1906, it was reorganised as a joint-stock company, with a paid up capital of Yen 200,000, under the control of Mr. Fujimoto.

It was not long before the necessity for more solidarity and the improvement of business demanded that the company should increase its capital, which was raised to Yen 1,000,000. In 1908 the company was authorised by the Minister of Finance to undertake ordinary banking business, and, in addition, to act as an agency for various financial purposes. Then the present title of the Fujimoto Billbrokers Bank was adopted, subject to the provisions of the current Banking Act. The next year Mr. Fujimoto resigned his presidency on account of the disturbance over the affairs of the Dai Nippon Sugar Refining Company, and Mr. Toshi Hiraga took the presidency of the disordered bank. By the zealous efforts of the new President and the Directors, the bank rapidly restored its credit and repu-

tation, and year by year became more prosperous, consequent on the increase in the volume of business and the enlarged sphere of operations. To-day the Fujimoto Billbrokers Bank, Ltd., performs a number of functions and maintains the following departments: (1) Banking Department—deposit, loans, discount of bills, dealing in domestic exchange and documentary drafts, acceptances, safe-deposit and other miscellaneous banking business; (2) Investment and Trust Department—underwriting and subscription of high-grade bonds, stocks (domestic and foreign), dealing in bonds, stocks, and other securities, corporation reorganisation and financing, sundry business as agent or trustee for corporations, intermediary for long and short term loans, and intermediary for the sale and mortgage of real estate; (3) Investigating Department—investigation of economic and financial conditions (domestic and foreign), investigation of credit and property of corporations and individuals, and the publication of a

journal, the "Fujimoto Billbrokers Bank Weekly."

The main office of the bank is located at Yokobori, 1-chome, Higashi-ku, Osaka, and there are branches at Tokyo, Nagoya, and Kobé. Members of the present Board of Management are Messrs. Toshi Hiraga, President; Yoshio Yokota and Ichitaro Tanimura, Directors; and Auditors, Messrs. Y. Yagi, H. Yanagi, and T. Kuwabara. The tables on page 530 will indicate the extent of the transactions of this important institution, and will also show its development during the past three business periods.

THE OKAZAKI BANK, LIMITED

THE widespread interests of the Okazaki family at Kobé have attracted a great deal of attention in commercial and financial circles in Japan, the family being noted for its keen enterprise and its readiness to embark on new ventures, having for their object the strengthening of Japan's com-



SAKAI-SUJI, HIGASHI-KU, OSAKA



HEAD OFFICE KOBÉ OKAZAKI GINKO (KOBÉ OKAZAKI BANK, LIMITED)



SHIN-NANIWA-BASHI BRIDGE, OSAKA, SHOWING TOWER OF OSAKA COURT OF APPEAL ON THE LEFT

mercial position. As an instance of this spirit may be mentioned the Okazaki Bank, Limited. This institution was founded after the outbreak of the war, the object being to provide free banking facilities for the shipping interests, and particularly as the medium for the financial operations of the Okazaki Steamship Co., Ltd. Mr. Tokichi Okazaki

has had a lengthy experience of the shipping business, and when the great development of Japan's mercantile marine took place, and the need for accommodating the shipping concerns with funds was felt, he was one of the first to appreciate the situation, and to do something to meet it. Consequently the Okazaki Bank was established, with a

capital of Yen 10,000,000. It is the only financial institution, so far, in Japan, devoting its business mainly to shipping. Mr. Tokichi Okazaki is the President of the Okazaki Steamship Co., Ltd., and of the Kobé Marine Transport and Fire Insurance Co., Ltd. His son, Mr. Tadao Okazaki, is Managing Director of the bank, which is located at No. 56 Naniwacho, Kobé.

ASSETS

| ITEM | JUNE 30, 1916 | DEC. 31, 1916 | JUNE 30, 1917 |
|---|---------------|---------------|---------------|
| | Yen | Yen | Yen |
| Capital unpaid..... | 600,000 | 600,000 | 400,000 |
| Loans (collateral and overdrafts)..... | 46,608 | 21,213,043 | 26,045,537 |
| Call loans..... | 8,090,024 | 4,117,108 | 15,115,778 |
| Bills discounted..... | 35,810,855 | 6,806,559 | 12,246,388 |
| Documentary drafts..... | 4,043 | ..... | 27,817 |
| Stocks and bonds (including foreign bonds)..... | 562,616 | 1,976,606 | 3,800,240 |
| Customers' liability on acceptances..... | ..... | 30,000 | 60,000 |
| Due from correspondent banks..... | 118,947 | 183,440 | 558,816 |
| Office furniture and other assets..... | 6,461 | 6,537 | 8,076 |
| Cash on hand and in other banks..... | 392,675 | 238,657 | 934,340 |
| <i>Totals</i> | 45,632,232 | 35,171,952 | 59,196,992 |

LIABILITIES

| ITEM | JUNE 30, 1916 | DEC. 31, 1916 | JUNE 30, 1917 |
|---------------------------------|---------------|---------------|---------------|
| | Yen | Yen | Yen |
| Capital..... | 1,000,000 | 1,000,000 | 1,000,000 |
| Reserve funds..... | 151,740 | 226,740 | 331,740 |
| Deposits..... | 6,720,934 | 11,489,921 | 16,444,064 |
| Money borrowed..... | 16,842,549 | 9,761,912 | 16,639,274 |
| Call money..... | 11,410,000 | 7,065,000 | 15,779,000 |
| Bills rediscounted..... | 8,441,681 | 4,598,445 | 6,563,251 |
| Acceptances..... | ..... | 30,000 | 60,000 |
| Due to correspondent banks..... | 676,831 | 528,439 | 1,844,720 |
| Other liabilities..... | 103,393 | 144,031 | 193,876 |
| Profit..... | 285,100 | 327,464 | 341,067 |
| <i>Totals</i> | 45,632,232 | 35,171,952 | 59,196,992 |

The dividends paid for these periods were: June 30, 1916, ordinary, 10 per cent and special 5 per cent; December 31, 1916, ordinary 10 per cent, special 10 per cent; June 30, 1917, ordinary 10 per cent, and special, 10 per cent.

TRANSACTIONS

| ITEM | JUNE 30, 1916 | DEC. 31, 1916 | JUNE 30, 1917 |
|----------------------------------|---------------|---------------|---------------|
| | Yen | Yen | Yen |
| Call money..... | 218,061,000 | 348,510,255 | 406,426,007 |
| Money borrowed..... | 44,110,600 | 38,839,100 | 38,600,100 |
| Fixed deposits..... | 15,042,997 | 23,163,626 | 31,094,928 |
| Bills rediscounted..... | 33,146,631 | 26,262,502 | 30,632,744 |
| Call loan..... | 106,866,737 | 98,951,118 | 150,330,875 |
| Bills discounted..... | 58,242,978 | 37,210,976 | 43,166,701 |
| Loans on collateral..... | 67,377,983 | 82,545,374 | 84,549,101 |
| Payment and receipt of cash..... | 2,312,497,748 | 2,935,798,774 | 3,393,707,581 |

MASUDA BILLBROKER BANK

THE business of bill brokerage as a branch of banking has been in existence in Japan only about ten years, but it has now reached very large proportions through such institutions as the Masuda Billbroker Bank at Osaka, Tokyo, and other centres. While the banks generally do their best to provide money for accommodating holders of drafts, there frequently arise circumstances which prevent the regular institutions from giving satisfaction to clients, mainly because funds for such purposes are limited. The Masuda Bank does its utmost to meet all such cases. It also deals with call money and call loans at the lowest premium, the advances and repayments being made at a day's notice without any particular conditions of terms. Besides providing money to meet bills, and to cover documents drawn against shipments, the Masuda Billbroker Bank deals in bonds, loans against other securities, mortgages, etc., and also acts as financial adviser to many small industrial concerns who can not obtain money easily from the regular sources. The bank is divided into two departments, one dealing with loans and the other with investments. In the Loans Department the following classes of business are done: (1) sale and purchase of commercial drafts, and drafts with security; (2) handling call money and call loans; (3) sale and purchase of bills and bills drawn against shipments; (4) other general banking business. In the Investment Department the business transacted is: (1) sale and purchase of bonds and securities; (2) acceptance, raising, and payment of debentures, shares, etc.; (3) sale and purchase of real estate and for lease, mortgage, etc.

The Masuda Billbroker Bank was established in October, 1897, but it was then doing a general business and was known as the Masuda Ginko Gomei Kaisha. In September, 1911, its status was changed and it became the Masuda Billbroker Bank, concentrating on the classes of business outlined above. The head office of the bank is at No. 14 Inabashi, Higashiku, Osaka. There are important branches at Sakayecho, Kobé, and at Minami-Kayabacho, Nihonbashi, Tokyo. The principal officials are: Directors, Messrs. S. Masuda (President),

M. Masuda, T. Hida, and T. Hayami; Auditor, Mr. M. Hayami; Manager, Mr. S. Uyesugi.

HYOGO PREFECTURAL HYPOTHEC BANK

This bank was established under the laws promulgated in 1896, whereby provision was made by the Law for Hypothec Banks (No. 83) and the Law for Subsidies to Hypothec Banks (No. 84), to create funds for the use of local agricultural and industrial people, on long credit and at low rates of interest, the objects being to promote improvement and development in these departments of national activity. Up to 1896 in Japan there was no institution which gave assistance to agriculturists and industrial concerns, under the conditions stated, though there were many banks to help mercantile people generally. Hypothec banks were established by the Government to make good this deficiency, and they were endowed with special facilities while at the same time remaining under Government surveillance. It was in November, 1897, that Mr. Shoichi Omori, Governor of Hyogo

Prefecture at that time, appointed a committee of twenty-eight to discuss ways and means of providing an hypothec bank under the new laws. This committee decided, after several conferences, to raise the capital stock necessary. Hyogo Prefecture had to take up 15,000 shares, representing Yen 300,000, and the balance of 35,000 shares, valued at Yen 700,000, was allotted to the general public, irrespective of locality. The subscription for the stock was much greater than anticipated. The bank was formally established at a general meeting held March 1, 1898, when the principal officers were elected. Offices were taken at No. 60 Sakaye-machi, 1-chome, Kobé, and business was started from July 1st of that year. As the business of the bank developed the original premises were found quite inadequate, and after several changes, the bank took up its quarters at No. 17, Shimoyamatedori, in July, 1907. Even this move was not final and the directors have purchased a fine site at Sakaye-machi, 1-chome, Kobé, where the erection of the new building (expected to be completed early in 1918) is now going

on. The capital of the institution has also been increased several times, and finally, in November, 1916, it was brought up to the present figure of Yen 4,000,000. Although for the first seven or eight years the Hyogo Prefectural Hypothec Bank had a reserve of only Yen 60,000, this sum has been steadily added to, and the reserves now total Yen 1,900,000, to which the sum of Yen 110,000 was added at the last half-yearly meeting. This is the largest reserve held by any of the agricultural banks of Japan. The bank's agricultural and industrial debentures have been issued on thirty different occasions and at present total Yen 11,300,000. The issue has been popularised through the use of the post offices, which raise the money and pay principal and interest, as due, to debenture holders. Loans to the public since the commencement of operations total 12,840 transactions, involving Yen 40,600,000, of which Yen 18,800,000 has been paid back, leaving a total on loan of Yen 21,800,000. As the loans are made on the basis of half the value of the securities, there is no apprehension of the standing of the



MASUDA BILLBROKER BANK, LTD.: THE TOKYO BRANCH (AT MINAMI-KAYABACHO, NIIHONBASHI-KU) —
INTERIOR AND EXTERIOR VIEWS OF THE HEAD OFFICE AT OSAKA



HEAD OFFICE OF HYOGO-KEN NOKO GINKO (HYOGO PREFECTURAL HYPOTHEC BANK), KOBÉ

bank being affected by any economic crisis that may arise. Loans are of various classes, made under the regulations governing the hypothec banks of Japan. To meet the overwhelming demand for accommodation from the bank's funds, branches have been established at convenient centres, and there are thirty-seven other banks acting as agents, in addition to the post offices throughout Japan. The directorate of the Hyogo Prefectural Hypothec Bank comprises the following: President, Mr. Ginyemon Ohtani; Directors, Messrs. Chojiro Ito, Kenjiro Hori, Gendayu Hirao, Yei-ichi Ito; and Auditors, Messrs. Injiro Nakamura, Narakichi Hatsui, and Shinyemon Konishi. The staff comprises Manager, Sub-Manager, 20 clerks, 6 sub-clerks, 14 assistants, and 5 servants. The balance sheet for the half-year ending June 30, 1917, appears on this page.

THE KISHIMOTO BANK, LIMITED

ESTABLISHED in 1894 as a private concern, the Kishimoto Bank of Kobé became a joint-capital bank in October, 1913, its capital being fixed at Yen 1,000,000. The bank has developed a large business in proportion to its capital, and has become a popular institution in business circles, a good part of its operations being associated with the financing of shipments, acceptances of drafts, etc. Mr. N. Kishimoto is the President, and the other directors are Messrs. K. Kishimoto, J. Kishimoto, R. Tanaka, and Auditors, Messrs. B. Kinoshita and H. Hirano. The head office is at No. 14 Minatocho, Nichome, Kobé, and there are the following branches: No. 48 Motomachi-dori, Shichome,

Kobé; No. 13 Tamon-dori, Shichome, Kobé; No. 1 Miyukidori Rokuchome, Fukiyai, Kobé; No. 30 Kitanaka-cho, Kobé; No. 86 Mikawaguchi-cho, Kobé, and No. 166 Nishi-nakasange, Okayama. The Kishimoto Bank, Ltd., is in correspondence with about 225 banks in such centres as Tokyo, Yokohama, Kyoto, Osaka, Nagoya, Gifu, Kanazawa and other principal cities and towns throughout Japan. The Directors are pursuing a very steady policy, and are placing a large proportion of the profits to reserve with a view to future expansion. The reserves on June 30, 1917, totalled Yen 216,000, and since then another Yen 40,000 has been added. From the balance sheet at the foot of this page for June 30, 1917, the financial position of the bank can be seen.

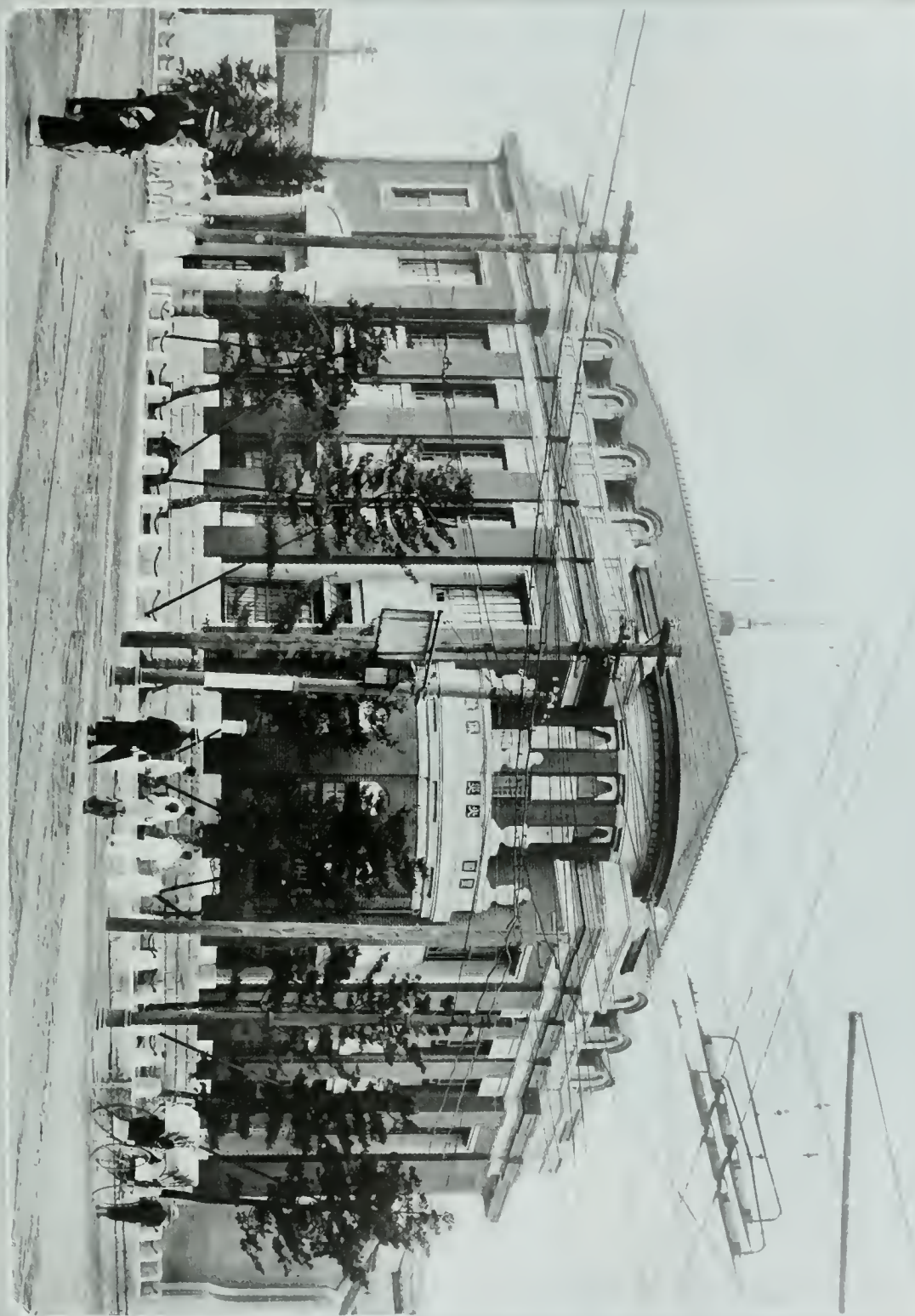
The net profit of Yen 83,071.18 was distributed as follows: To reserve funds, Yen 40,000; to redemption of properties account, Yen 4,000; dividend at 5 per cent per annum, Yen 25,000; bonus, Yen 5,000; staff pension fund, Yen 4,000; and carried forward to next term, Yen 5,071.18.

BALANCE SHEET OF THE HYOGO PREFECTURAL HYPOTHEC BANK

| DEBIT | | CREDIT | |
|--|--------------------------|--|--------------------------|
| Capital unpaid..... | 1,500,000.00 | Capital..... | 4,000,000.00 |
| Loans on yearly installments.. | 11,720,282.75 | Reserve against losses..... | 715,000.00 |
| Loans on fixed period..... | 2,120,241.71 | Reserve to equalise dividends.. | 180,000.00 |
| Loans as agents for the Industrial Bank of Japan.... | 7,978,001.90 | Special reserve..... | 410,000.00 |
| Drafts discounted..... | 13,435.00 | Unpaid dividends..... | 6,230.85 |
| Fixed deposits..... | 3,607,032.71 | Loan bonds issued..... | 10,144,630.00 |
| Current accounts..... | 169,340.51 | Fixed deposit funds..... | 2,670,980.32 |
| Post Office transfer savings... | 89,395.11 | Current deposits..... | 1,305,765.51 |
| National Loan Bonds..... | 187,953.00 | Guarantee for loans as agents.. | 7,978,001.90 |
| Foreign loan bonds..... | 580,610.41 | Fund for payment for Industrial Bank of Japan..... | 3,793.00 |
| Funds in agents' hands..... | 38,055.82 | Money to be collected for Industrial Bank of Japan.... | 4,427.28 |
| Real estate, furniture, etc.... | 131,350.00 | Money temporarily received.. | 234,555.96 |
| Other properties..... | 125,602.21 | Balance from previous term... | 120,249.32 |
| Money temporarily paid out.. | 85,918.43 | Profit for half-year..... | 695,052.18 |
| Cash on hand..... | 121,466.76 | | |
| Total..... | Yen 28,468,686.32 | Total..... | Yen 28,468,686.32 |

BALANCE SHEET OF THE KISHIMOTO BANK, LTD.

| LIABILITIES | | ASSETS | |
|--|--------------------------|---|--------------------------|
| Capital..... | 1,000,000.00 | Sundry credits..... | 10,120,242.73 |
| Reserves..... | 216,000.00 | Credit by drafts..... | 392,597.24 |
| Deposits..... | 12,478,632.10 | Acceptances countermanded.. | 163,156.00 |
| Loans on drafts..... | 451,738.46 | Bonds and shares..... | 919,508.00 |
| Acceptances for payments... | 163,156.00 | Land, buildings, and furniture.. | 265,956.64 |
| Sundry accounts..... | 302.00 | Immovable properties..... | 49,581.44 |
| Staff pension fund..... | 7,232.73 | Guarantee money for acceptance of shares..... | 125.00 |
| Interest and discounts unpaid | 92,635.10 | Deposits and cash on hand... | 2,581,690.52 |
| Net profit for half-year including amount brought forward..... | 83,071.18 | | |
| Total..... | Yen 14,492,767.57 | Total..... | Yen 14,492,767.57 |



HEAD OFFICE OF THE HOKOKU FIRE INSURANCE CO., LTD., OSAKA

INTERNATIONAL BANKING CORPORATION

THE Kōbē branch of the International Banking Corporation was established in 1904 and is located in a handsome red brick structure at No. 38 Akashi-machi, in the centre of the business quarter. The staff comprises four foreigners and twenty assistants. The International Banking Corporation has branches in all the important business centres of the Far East, and it has made great progress of recent years, particularly since marked increase has taken place in the business transacted between the United States and Japan and China.

The Kōbē branch of the bank has been under the direction of Mr. A. E. Irving since September, 1914, that gentleman having been in the company's service for over thirteen years.

(See Section IX, page 90, for the notices of other Banks and Insurance Companies.)

INSURANCE COMPANIES

HOKOKU FIRE INSURANCE CO., LIMITED

THIS company was founded in February, 1912, by a number of the wealthy and influential business men of Osaka, and in common with most new enterprises, the Hokoku Fire Insurance Co., Ltd., had some obstacles in doing business at first. But after six years of ceaseless planning, surmounting all difficulty since it had commenced business, it has outgrown that stage, and its development leaves nothing to be desired by its founders. A steady policy has been pursued all along, and the confidence which the company has created with the public is best evidenced by the fact that the amount of insurance now contracted for exceeds Yen 200,000,000. The directors came to a working agreement with the Tokyo Marine Insurance Co., Ltd., which is undoubtedly the leader in marine insurance business in Japan, and from July, 1917, this class of insurance, as well as general transportation insurance, was entered upon. This development is a highly important one for a company located in such an important industrial and shipping centre as Osaka, and the future of the Hokoku concern should be well worth watching. The capital of the company is Yen 3,000,000. Its head office is at No. 53, 3 chome, Sonezaki Shinchī, Kita-ku, Osaka, and there are branches at Tokyo, Yokohama, Nagoya, Kyoto, Kōbē, Hiroshima, and Fukuoka. The head office is established in a splendid new building at the corner of the electric railway crossing point at Sakurabashi.

Mr. J. Otani is the President-Director of the Hokoku Fire Insurance Co., Ltd. Other members of the Board are Messrs. T. Shima, I. Amagasaki, H. Abe, S. Shikata, S. Ota, and W. Mayijima. The Auditors are Messrs. K. Hamazaki and R. Kobayashi.

THE TOKYO MARINE INSURANCE CO., LIMITED

IN the Tokyo section of this work full reference is made to the history and development of the Tokyo Marine Insurance Co., Ltd., one of the acknowledged leaders of insurance in Japan, and certainly one of the greatest companies of its kind in the world. Unquestionably the company owes a great deal of its prestige to the strong position which it has assumed in Osaka, where, as might be expected, in such a great commercial and shipping centre, a large volume of business is being done. The Osaka branch of the Tokyo Marine Insur-

ance Co., Ltd., was opened in June, 1895, but as the company then had neither business connections nor shareholders in Osaka to assist in developing its interests, the business done was very small, the annual insured amount not exceeding about Yen 30,000,000 for the first two or three years. When, however, the wonderful development in commerce and industry took place in Osaka, the company's business began to improve. Full advantage was taken of the activity, especially in foreign trade, and the company was fortunate in having in charge of its interests such an energetic and sound insurance man as Mr. H. Hirao. This gentleman, who founded the Osaka branch, and is now the Resident Managing Director there, with the assistance of a loyal and competent staff, has placed his company in a position that is not rivalled by the old or new concerns handling insurance in Osaka. The total volume of insurance contracted by



HEAD OFFICE OF KISHIMOTO GINKO, KōBÉ

the Osaka office during 1917 was over Yen 300,000,000, or ten times the amount written in the first years. Such a record is one to be proud of, and it testifies to the high regard in which the Tokyo Marine Insurance Co., Ltd., is held in business and commercial circles generally. While it is admitted that

ness that was started about a quarter of a century ago in Osaka. The establishment of the Osaka Insurance Co. can be traced back to 1893. The corporation has since altered its name twice, such as, The Osaka Fire Insurance Co., Ltd., and The Osaka Fire, Marine & Transport Insurance Co.,

that time were regulated. An entire change in the policy of the company took place under expert direction, a special effort being made to concentrate on marine insurance, and to change the methods under which the business had been conducted in the past. The Directors gave their attention to the foreign situation, and appointed many agents abroad, one of the most effective moves being the appointment as sole agents for the United Kingdom, France, and Norway of Messrs. Sedgwick, Collins & Co., Ltd., of No. 7 Gracechurch St., London, E. C. This company is one of the best and most experienced of insurance brokers in the world, and the special contract entered into with Messrs. Sedgwick, Collins & Co., Ltd., by the Osaka Marine and Fire Insurance Co., Ltd., gave insurers against marine and fire risks many advantages that could not be offered them previously.

This vigorous policy has resulted in completely changing the company's position in the insurance world. It is to-day doing a very extensive business, and through its foreign connections it is able to issue insurance in any part of the world, members of its own staff being attached to Messrs. Sedgwick, Collins & Co.'s office in London. Branches of the company have been established at the following centres in Japan: Tokyo, Yokohama, Nagoya, Kanazawa, Kyoto, Kobe, and Kyushu, and there are in addition scores of agencies throughout the Japanese Empire and abroad. So great has been the development of the company's business that the capital has been increased to Yen 5,000,000, of which Yen 1,540,000 has been paid up. The Board of Directors of the Osaka Marine and Fire Insurance Co., Ltd., comprises such well known commercial men as Messrs. R. Hunter (President), G. Tarao (Managing Director), M. Kita, and K. Kimura. The Auditors are Messrs. T. Inouye, S. Nango, and S. Nakayama. Mr. Y. Asai is the Manager. The company has its head office at No. 10 Kawaguchicho, Nishi-ku, Osaka.



THE SPLENDID NEW BUILDING OF THE TOKYO MARINE INSURANCE COMPANY, LTD., AT OSAKA

much of this increase is due to the marvelous growth of Osaka's foreign trade, and the increase in the number of local ship-owners, it is also a tribute to the vigorous management of the branch by Mr. Hirao. (See also page 135.)

THE OSAKA MARINE AND FIRE INSURANCE CO., LIMITED

This influential corporation, which transacts a large volume of the marine insurance effected abroad, is the development of a busi-

ness that was started about a quarter of a century ago in Osaka. The establishment of the Osaka Insurance Co. can be traced back to 1893. The corporation has since altered its name twice, such as, The Osaka Fire Insurance Co., Ltd., and The Osaka Fire, Marine & Transport Insurance Co., Ltd., respectively. The latter name was held until March, 1916, when a great change took place in the insurance situation. The reorganised company was given the name of The Osaka Marine & Fire Insurance Co., Ltd., and its last capital of Yen 1,000,000 was increased to Yen 5,000,000.

The personnel of the shareholders was changed to include some of the most influential ship-owners, merchants, and manufacturers. New staffs were appointed, properties were adjusted, and the losses incurred up to

KOBÉ MARINE TRANSPORT AND FIRE INSURANCE CO., LIMITED

The history of this powerful organisation covers the period of Japan's greatest commercial expansion, and its origin is to be found in the determination of the Japanese to be independent, as far as possible, of foreign insurance. After the Russo-Japanese War commerce and industry in Japan went ahead by leaps and bounds, and the merchant marine grew apace. Cargoes of goods were plentiful, and the commercial community began to feel the need of trustworthy companies to accept insurance. At that time



OSAKA KAIJO KASAI HOKEN KAISHA (OSAKA MARINE AND FIRE INSURANCE CO., LTD.): THE TOKYO OFFICE—
A CORNER OF THE OSAKA OFFICE



KOBÉ MARINE TRANSPORT AND FIRE INSURANCE COMPANY, LTD : MARINE INSURANCE DEPARTMENT—THE PICTURESQUE
KOBÉ OFFICE—FIRE INSURANCE DEPARTMENT



PROMINENT KOBÉ AND OSAKA INSURANCE MEN

(Upper Row, Left to Right) Mr. G. TARAO, Managing Director, Osaka Marine and Fire Insurance Co., Ltd.—Mr. J. OTANI, President, Hokoku Fire Insurance Co., Ltd.—Mr. M. HIRAO, Managing Director, Tokyo Marine Insurance Co., Ltd. (Lower Row, Left to Right) Mr. S. TANAKA, Managing Director, Kobé Marine Transport and Fire Insurance Co., Ltd.—Mr. TOKICHI OKAZAKI, President, Okazaki Bank, Ltd., Okazaki Steamship Co., Ltd., and Kobé Marine Transport and Fire Insurance Co., Ltd.—Mr. S. MIKI, Manager, Kobé Marine Transport and Fire Insurance Co., Ltd.

the business was affected by only two or three Japanese companies, and it was felt that the bulk of the business, which was left to the foreign companies, could more advantageously be handled by powerful local organisations, if such could be brought into existence. It was to carry out this mission that the Kobé Marine Transport and Fire Insurance Co., Ltd., was formed, the promoters being almost all the ship-owners belonging to the Japan Shipowners Union, excluding the Nippon Yusen Kaisha and the Osaka Shosen Kaisha; the big shippers or consignors, wealthy commercial magnates, and foreign residents in Japan, influential in commercial and industrial circles. The company was formally established in May, 1907, with a capital of Yen 5,000,000, and with Mr. Tokichi Okazaki as its President. The promoters wisely decided to make Kobé their base of operations, instead of Tokyo, the former being

the more important shipping and commercial centre for oversea trade. Further, with a view to facilitating business, the shareholders were sought among the ship-owners and consignors, foreigners and Japanese jointly, and the shareholders were the first to be insured. Putting aside all speculative tendencies, such as are found among most newly formed concerns of this nature, the company adopted a slow-but-sure policy, as a result of which the insurance in this company won the public confidence and made steady advancement. In the first year of operations the company covered insurance of only Yen 60,089,806. Its income was Yen 238,050, and it sustained losses totalling Yen 133,938. In 1916, however, the insurances affected reached the enormous total of Yen 805,564,150, and the income from premiums amounted to Yen 3,243,880, from which Yen 1,681,587 was paid for losses. The statistics for

1917 are not available at the time of writing, but it is confidently expected that further increases will be shown, as the year was more brisk than was 1916.

The head office of the company is at No. 19 Akashicho, Kobé, and branches are maintained at Tokyo, Osaka, Yokohama, Kobé, Otaru, Nagoya, Kyoto, and Fukuoka. In addition, there are over a thousand agents throughout the principal towns in Japan, as well as in foreign ports. On the Board of Directors of the Kobé Marine Transport and Fire Insurance Co., Ltd., are some of the best known men in business circles in Japan. The Directors are: Messrs. Tokichi Okazaki (President), Seizo Tanaka, Chojiro Ito, Kichizayemon Tatsuma, Kanetaro Kishimoto, Toshio Momozaki, and Chohei Yoshida. The Auditors are Messrs. Kiichiro Osone, Miyakichi Itaya, and Tashiro Tsuchihashi. Mr. Saburo Miki is General Manager and Mr. Toyotoshi Kojima is Chief of the Business Department.



A FACTORY GIRLS' PICNIC

XXXV. LABOUR CONDITIONS

SUDDEN TRANSFORMATION—PHENOMENAL GROWTH OF CITIES—JAPAN NECESSARILY INDUSTRIAL—
SERIOUS ASPECTS OF THE SITUATION—UNHEALTHY CONDITIONS—MORAL DANGERS
—RIGHTS OF LABOUR—LABOUR UNIONS BARRED—STRIKES FREQUENT—
WAGES IN JAPAN—FUTURE OF JAPANESE LABOUR

THE same process by which such countries as England, Germany, and Italy have been transformed from an agricultural to an industrial basis is now going on in Japan, but at a rate so rapid that the country is unprepared to deal with it, resulting in serious evils to labour and industry. The more extensive and insistent markets opened up to Japan by the wars with China, Russia, and Germany have greatly expanded the nation's industries, shifting them from the home to the factory, creating crowded centres of activity with their consequent questions of labour.

SUDDEN TRANSFORMATION

NOTWITHSTANDING that she is primarily an agricultural nation, Japan is now forced to lay increasing emphasis on commerce and industry, to the comparative neglect of agrarian interests, for the sake of supplying the revenue necessary to maintain her vast armament programme, and the outcome is an abnormal rush of population to the cities, with social conditions anything but favourable. Thus the changes that

took a hundred years for accomplishment in Europe, Japan has undergone in the memory of people now living, and the phenomenal celerity of the revolution has naturally given rise to problems still more intensive and acute, commanding a place in the councils of her statesmen and all who are interested in the labour movement.

PHENOMENAL GROWTH OF CITIES

As in other countries, so in Japan the dominant characteristic of the new industrialism is the trend of population from the country to the city, always the main sphere of industrial activity. This abnormal expansion of urban population is almost revolutionary in its effect on Japanese society. In the case of Tokyo, the capital, population during the last twenty-five years has increased from 857,780 to 2,500,000, while Osaka, the greatest industrial centre of the Empire, during the same period has grown from 500,000 to over 1,500,000, Nagoya from 200,000 to 450,000, Yokohama has increased fourfold and Kōbe fivefold. The five great industrial centres above mentioned have

thus increased 325 per cent, or 300 per cent more than the nation as a whole. For Tokyo alone the growth of industrial population has been about 415 per cent in the last decade or more. The transformation has, indeed, been nothing short of marvellous. Great areas which ten years ago were taken up with rice fields or marshes are now reclaimed and covered with factories or labour tenements, and property values at the same time have gone up more than 1,000 per cent. Osaka, Kōbe, and Yokohama have had much the same experience. These cities may be justly taken as focal points to reveal the metamorphosis of Japan from a feudal to an agricultural country, and now to the age of steam, electricity, and steel.

JAPAN NECESSARILY INDUSTRIAL

THE extraordinary development of industrialism in Japan is neither accidental nor temporary. Situated like Great Britain, on the shoulders of a continent, Japan occupies a position of unique commercial advantage. In her own ships she can move the products of her own factories to any port of the exten-

sive coast-line of China, and up that country's endless waterways, at lower rates and with greater expedition than any of her competitors. Without sufficient resources of her own in iron and other raw materials, Japan early realised in her contact with modern nations, that to keep up a balance of trade she must vastly increase her industrial capacity and lay hold of the markets of China, where the iron resources of East Asia lie unexploited, and now she has been drawn so far into the race for industrial supremacy in the Far East that her system has invaded every country and her merchant marine is placing her products in every market. Japan believes that her future as a world-empire depends on her ability to hold and increase the markets she has won. She has entered on a path of empire from which she can not draw back. To her, the expansion of commerce and industry is not an academic but the most vital of all questions. The future of Japan depends not on her statesmen nor her commercial magnates, nor even on her naval and military strength, but on her factory workers.

SERIOUS ASPECTS OF THE SITUATION

JAPAN's sudden leap from feudalism to labour and then from a rural to an urban population has created contrasts that gravely menace each other. The transformed, overgrown cities are like separate nations in the midst of a rural population that has not changed with the times at all. There is a great gulf between the life and environment of the peasant villager and the denizen of a congested commercial and industrial centre. The thousands of workers that pour into the cities every year find themselves in a wholly new world. In the space of one day the old restraints of family, religion, and society, that hitherto molded and steadied the life of the villager, are all removed, and the individual is up against a huge and soulless machine where the forces of capital and greed hold the whip hand. Into this machine, more merciless than any now to be found in Occidental lands, the labourer must merge or be crushed. Yet in Japan his power to understand his new environment or to adjust himself to his new social order is extremely limited. But whether he understands or not, he must be prepared

to have himself, as a unit, assessed at less value than the material product.

The difficulty of the situation will be more fully appreciated if the nature of the society from which the Japanese labourer is drawn be kept carefully in view. The labourer comes from the country, which has changed but little since the days of feudalism. Feudalism but poorly prepared the individual to face the demands of modern industrialism. Customs of centuries get into the blood and become second nature. The feudal habit of the vassal depending on the lord, the servant on the master, the inferior on the superior, created ties which modern conditions have suddenly snapped, while the herding of great masses of people, thus left masterless, in congested cities means, to most of them, social and economic demoralisation. In a period of such violent transition a nation's social liabilities are always greater than its assets. The great cities of Japan, already overburdened with their own poor, and harassed by complex civic problems, are quite unable to assimilate or care for the large annual additions to their population.



GROUP PHOTOGRAPHED ON THE OCCASION OF THE VISIT OF PREMIER TERAUCHI TO THE FACTORY OF THE TOYO MUSLIN KABUSHIKI KAISHA. PREMIER TERAUCHI TAKES A KEEN INTEREST IN QUESTIONS OF INDUSTRY AND LABOUR

UNHEALTHY CONDITIONS

Of course time is needed to allow the new population flowing into the cities to find itself socially and economically, as well as to allow the upper classes to realise their responsibility for the needs of their expanding cities. As yet there is in Japan no public conscience able to perceive any close connection between the uplift and conservation of the labour class and the permanence of the nation's industrial power. Even factory owners yet fail to see that there is a direct relation between the care accorded the human machine and its working output. Young men and women suddenly removed from the fresh air and healthful surroundings of country life to the foul atmosphere of factories and the low, damp beds and poor food of the industrial centres, soon undergo physical deterioration. Long hours of toil amid unsanitary conditions lead to contagion and disease. Few constitutions are able to endure the strain of standing from 12 to 16 hours a day at high-powered machines. The unhygienic conditions in which Japanese factory girls have to work and live are especially bad, while the over-crowding of dormitories and the use of child labour but increase the danger. Nearly half a million workers recruited from the best blood of the country annually pour themselves into the polluted conditions of factory life, most of them never to return.

The results are particularly disastrous to women and children. Of the more than 500,000 female workers in Japanese factories some 300,000 are under 20 years of age. In the spinning, weaving, and dyeing industries over 400,000 girls and children are engaged, 70 per cent of whom live in factory quarters where they are subject to restrictions bordering on confinement. In the raw silk mills work lasts from 13 to 14 hours a day on an average, and in the weaving mills from 14 to 16 hours a day. The hands in the spinning mills have to take night work every other week. The week ending the night shift always shows a loss of weight in the girls, and ultimately wrecks their health. Few can go on longer than a year, when desertion, illness, or death affords relief. Statistics show that some 80 per cent of the workers leave the mills every year, their places being taken by new recruits collected by agents going through the country. Women on the night shift sleep in the same beds as those on day work, the beds thus never getting a chance to be aired or cleaned, and consequently are nests of bacteria for the spread of disease. More than 200,000 girls are recruited for the factories every year, of whom more than 120,000 never return to the parental roof. Some die, some find refuge in places of questionable resort, and some openly adopt an ill life. Of

the 80,000 who find their way home again 13,000 are sick, 25 per cent of them with consumption.

MORAL DANGERS

NOR are the moral dangers of the Japanese worker more hopeful than those menacing his physical condition. Housing is congestive in the extreme, leading to moral as well as bodily deterioration. The houses are too small, and the smallest often contains more than one family of five or more persons each, all jumbled together in one room where decency of life is impossible. Many of the poor families take lodgers who sleep with the family on the same floor. In the factory dormitories for girls unscrupulous managers are reported to hold the victims in virtual moral slavery. One Japanese expert on factory conditions avers that it is not uncommon for more than half the girls in a factory to lose their virtue in a year. The long hours leave the workers so weary that any sort of excitement is welcome and tempting, and consequently vicious pleasures and pastimes are encouraged and common. The most usual amusements are drinking, gambling, and sensuality. Thus the youths and maidens from wholesome country homes are suddenly separated from the moral restrictions of innocence and childhood and are plunged into immoral conditions where they lose self-respect and health, and where death is often a happy relief.

Much might also be said of the moral effects of turning away from hand-made products to machinery, from art to artificiality, from conscience and idealism to expediency and wages, with a consequent stunting of individuality and ideals. Moreover the constant shifting of hands on account of illness or injustice or breach of contract renders maintenance of highly skilled labour difficult. In some factories when a worker becomes too familiar with skilled processes he is considered dangerous and removed to another department.

RIGHTS OF LABOUR

THE Japanese labourer enjoys no political rights, and of others he possesses but few. He has no vote and therefore no way of controlling or improving the conditions under which he has to live and work. He has to accept the decision of his employer as to hours, safety devices, health provision, wages and all the usual details of labour, without question, though a factory act recently put into operation may slightly modify this statement in respect to hours and safety. At present no more than eight per cent of the men of Japan have the right of franchise, and of this proportion, numbering in all a little

over 1,600,000, only 153,768 live in cities and have any chance to experience or influence industrial life. As labour organisations are prohibited the labourer has no way of appealing to public opinion except by strikes, which also are prohibited and severely dealt with when they occur. In Japan, therefore, labour is placed almost wholly at the mercy of the privileged classes, and has to submit to increased cost of living without a corresponding rise in wages.

Conditions seem all the harsher seeing that the Japanese worker is not illiterate, more than 80 per cent being able to read and write, and over 90 per cent of the children of labourers are at school. The Japanese worker not only reads the newspapers but takes considerable interest in the public questions of the day. The sources of knowledge being thus open to him he is not likely to submit much longer to the contrasts that exist between his lot and that of his fellow-workman in other countries. It is, therefore, quite improbable that the labourers of Japan will continue content to create the nation's wealth without receiving a larger share of the opportunities of life and the benefits of civilisation. Education without rights, knowledge without opportunity, is like generating steam in a flask—a dangerous experiment!

For what interest has been created in the rights of labour in Japan the labourer is largely indebted to Occidental organisations. In the past Japan has not figured as a very important factor in the labour movement in foreign eyes. To the average economist as well as worker, in Western lands, Japanese labour has seemed a thing apart, deserving perhaps a degree of consideration but unappreciably affecting the great labour world as a whole. This attitude no doubt has been due to a prevailing conviction as to the cheapness and inefficiency of the Japanese workman as compared with his Occidental contemporary, and to the isolation of Japanese labour from Western labour unions. But the recent progress of Japanese industry, having begun to affect the world's supply and demand, is arousing interest abroad and already representatives of Japanese labour have been conferring with labour organisations in America.

LABOUR UNIONS BARRED

It is Japan's unique distinction to have no labour unions, but from what has already been said it is clear that this is not because labour needs no amelioration in Japan. While labour unions are strictly prohibited by the authorities, a society known as the Yuai-kai, or Labourers' Friendly Society, has been tolerated and is doing what it can to improve the conditions of the workingman. Founded



WORKMEN'S QUARTERS AT HIOGO MILL, KANEGAFUCHI SPINNING CO., LTD.

in 1912 it already has a membership of some 30,000, most of whom are in Tokyo. For a monthly fee of 10 sen members receive legal and medicinal advice, may hear lectures on social questions, personal hygiene, and domestic economy, secure participation in a coöperative supply union, and also find an authorised medium to air grievances. Speaking generally, Japan has no social settlements for the improvement of conditions among the poorer classes of the city, but a few under missionary auspices have been started and are doing good work. What the Japanese labourer wants, however, is not charity but his rights, such as are enjoyed in all free and progressive countries. Given these, he is as well able to take care of himself as the worker of any other country.

It must be admitted with disappointment that so far the labour movement in Japan has not met with much encouragement. With the diffusion of liberal and philanthropic ideas following the introduction of Western civilisation and intercourse with Occidental nations, it was hoped that labour would receive due attention and be accorded its

rights. Leaders like Count Itagaki endeavoured to circulate newer ideas of freedom, but his propaganda was checked by an attempt to assassinate him. Later, the labour movement in England and the United States began to find echoes in Japan under the leadership of Mr. Sen Katayama, Professor Abé, and others, who had studied abroad and on their return started a crusade for the reform of labour conditions at home. Books like Bellamy's "Looking Backward," Henry George's "Progress and Poverty," and Booth's "Darkest England" were eagerly read and labour unions after the Western fashion were talked of, but in their zeal the leaders made the mistake of attempting to graft Occidental institutions unmodified into the radically different social body of Japan. As time went on the movement divided into what might be called an evolutionary and revolutionary trend that proved fatal, for the evolutionists sided with socialism and the revolutionists with anarchy. Through books, papers, and public speeches Katayama led in an aggressive propaganda for socialism, while the other wing, led by Kotoku, under guise

of a party called the Social Democrats, urged the most radical and alarming measures. On his return from America Kotoku finally became an advocate of anarchist doctrines, and in 1910 he, with twenty-six others, was involved in a conspiracy to assassinate the Emperor, whereupon the whole twenty-six were condemned to execution. Of the conspirators, thirteen had their sentences commuted to imprisonment for life, and Kotoku and his wife and the remaining eleven were executed. This was a tremendous blow to the labour movement, as subsequently it became associated with disloyalty and thoughts dangerous to the nation, which was just what its opponents wanted for its overthrow.

Since the above unfortunate episode, which really had nothing to do with any genuine labour movement, the regulations concerning socialism and anarchy have been made unprecedentedly rigorous. All the authorities have to do in order to destroy any new movement at present is to brand it with the hated name of socialism. Even a hint in this direction is sufficient to make every Japanese

fly from it in terror. Labour unions are included in the regulations against socialism and anarchy, which is sufficient to give them the quietus. There are many socialists still among the Japanese labour classes as well as among the young men of the middle class, but they can find no vent for expression. Thus all the work which Katayama did in organising labour unions among the iron-workers, typographers, street-car men, ship-builders, miners, and railway men seems to have melted into nothing.

For some years now Japanese labour has been left without any resource except the strike, and strikes have marked the annual progress of labour ever since, in spite of the stern regulations against them. In Japan a

factory legislation became rife, and in 1898 a factory law was drafted and approved by the Department of Agriculture and Commerce. There it rested, however, and other bills were brought forward, modelled after American or European precedents, and providing for the organisation of coöperative industrial societies, for manhood suffrage without property qualification, for building and loan associations, and for housing reform, going even so far as to suggest that Labour should have a special representative in parliament. Parallel with these efforts after political and economic reform the labour leaders were doing all they could in a quiet way to further the spirit of brotherhood and mutual aid among the workmen themselves. Labour clubs were

funds were not infrequently misappropriated. Finally the day arrived when not a single labour union remained.

At present the general attitude of state authority in Japan is firmly opposed to labour unions, and this may be taken as a reflection of the attitude of capitalism in Japan generally. The majority of Japanese employers hold tenaciously to the feudal conception of the right of the master to force his will on the labourer without conference. To recognise the rights of labour is regarded as both inconvenient and unprofitable. There are a few capitalists, however, who realise that the rights of labour to consideration must inevitably be recognised, and that such a day should be warded off by compromise. Not a few capitalists also are beginning to take an interest in promoting the comfort and welfare of labour as the best way to hasten the progress of industry, though some of the mutual benefit associations and insurance schemes fostered by capitalism are obviously only a means of holding the services of the workers who would suffer economically by cutting loose. As a rule, however, the Japanese capitalists as a class, having the reins in their own hands, are indifferent to labour questions, while the universities are more concerned with the economic than the human aspect of labor.

STRIKES FREQUENT

MEANWHILE strikes and labour disputes are remarkably on the increase. With the mounting inequality of distribution, the unrest of labour is becoming yearly more serious and never more so than at present. The capitalists can no longer depend on the canine submissiveness of the masses nor suppress complaints against injustice by mere intimidation, for it is apparent now to all that the struggle between capital and labour in Japan has at last begun. In the last few years serious strikes have occurred in such industries as steel, iron, shipbuilding, weaving, and spinning, and in some instances conditions were so grave as to require the calling out of the troops to restore order. In most of these conflicts between labour and capital, however, the latter comes out victorious, concession, where it occurs, being in almost every case due to the magnanimity of the employer. But circumstances at present point to a more hopeful development of the labour movement in future. Between 1897 and 1902 Japan had 127 strikes involving more than 20,000 workers, of which 57, representing some 8,000 labourers, were partially successful. Between 1908 and 1911 there were 68 strikes more or less futile, and the story of unameliorated disaffection of labour still continues. Between 1912 and 1915



DINING ROOM MAINTAINED FOR THE EMPLOYEES OF THE NIPPON HEIKI SEIZO KABUSHIKI KAISHA (JAPAN ARMS AND MACHINERY MANUFACTURING CO., LTD.)

strike is not quite the same thing that it is abroad, for it is often the result of ill treatment as well as of economic reasons, and when a company of Japanese workmen resolves on a strike the employer may always prepare for violence. The first strike of any serious importance in Japan was that of the Takashima coal-mine workers at Nagasaki in 1888, and shortly afterwards this was followed by a strike of the tea-curers at Yokohama. In 1891 the bootmakers' union caused a strike on the business being taken over by the Army. In the decade between 1891 and 1900 the question of labour and social conditions generally attracted wide public attention, the leading newspapers showing a sympathetic interest. Agitation for the lowering of taxes and the enactment of

opened at various centres, especially among railway men. The educated classes began to evince some intelligent interest in social and labour problems. The largest and most influential of the unions was that of the engineers and firemen, which had a membership of over a thousand and a fund of 48,000 yen. The climax of the movement was reached in 1899 when the Engineers and Firemen's Union declared a strike against the Japan Railway Company. The railway officials immediately set to work promoting measures for the destruction of labour unions. Within the succeeding five or six years most of the labour unions were suppressed. The process of abolition was hastened by schism among the labourers themselves, who lacked efficient and intelligent leadership, and

there were 146 strikes involving about 20,000 hands, without much satisfaction. The number of strikes in 1916 was 108, representing some 9,000 men, while in 1917 strikes numbered 31, affecting over 30,000 workmen. Thus it is evident that every year the number of strikes and of hands involved is increasing. The most serious strikes in 1917 were 12,000 men at the Mitsubishi Dockyard at Nagasaki, 2,000 men at the Osaka Iron Works, 4,000 hands at the Tohata Glass Works, 2,200 at the Fuji Spinning Company's mills, 1,920 at the Japan Steel Works, and 4,000 men at the Mitsubishi mines. The cause of these strikes was in most cases for a rise of from 15 to 20 per cent in wages and better treatment of workers, which is doubtless an echo of the greatly increased cost of living without a corresponding rise in wages. It is the general belief in economic and industrial circles that strikes will become an increasing feature of Japanese labour until such time as it receives due recognition.

WAGES IN JAPAN

To arrive at any degree of accuracy as to wages in Japan is not easy, as such terms are usually secret. On the whole it may safely be said that the wage scale in Japan is far below what it is in Western countries. Taking cotton mills as an example, the wage per thousand spindles managed by one operative in the United States is Yen 3.53; England by two operatives, Yen 2.78; Japan by five operatives, Yen 1.67. If the same material be worked upon, the output in Japan would be much cheaper than in either England or America. Again, if the weekly wages of five common trades in five other countries be compared with the wage prevailing in Japan, the latter seems remarkably low.

The average Japanese family is supposed to require Yen 22.64 per month to live upon. As large numbers of the principal wage earners get only from 10 to 15 yen per month it is difficult to understand how they make ends meet, but no doubt it is done by the assistance of wife and children, or else the family is underfed. Judging from the emaciated faces of the poor one must assume that lack of sufficient nourishment is only too common. The average wage earner in Japan gets no more than 21 yen a month, which is clearly below the requirements of the average family. The average annual income of the Japanese labourer is about 252 yen, which is miserably inadequate compared with the 1,121.77 in England, 1,409.78 in America, 669.84 in Germany, and 933.34 in France. The accompanying table illustrates the daily wages for leading occupations in Japan before the war in

Europe, since which wages have largely increased.

Prior to the European war the average daily wage of Japanese labour had risen to

45 sen. There was an increase of 4 per cent in 1915, of 11 per cent in 1916, and of 16 per cent in 1917, but this has not kept pace at all with the ratio of increase in

| COUNTRY | BRICKLAYER | CARPENTER | PAINTER | SMITH | COMPOSITOR |
|--------------------|------------|-----------|---------|-------|------------|
| | Yen | Yen | Yen | Yen | Yen |
| England..... | 19.70 | 19.14 | 18.24 | 17.52 | 16.06 |
| Germany..... | 15.20 | 15.20 | 14.44 | 16.06 | 12.62 |
| France..... | 14.04 | 14.72 | 12.86 | 15.46 | 14.04 |
| Belgium..... | 11.68 | 12.28 | 10.50 | 11.92 | 11.12 |
| United States..... | 60.84 | 43.80 | 41.36 | 41.52 | 39.14 |
| Japan..... | 7.07 | 5.60 | 3.26 | 4.69 | 3.57 |

| CLASS | ADULTS | | CHILDREN | |
|----------------------------|--------|--------|----------|--------|
| | Male | Female | Male | Female |
| | Sen | Sen | Sen | Sen |
| Textile factories..... | 39-64 | 28-36 | 17-35 | 9-23 |
| Chemical works..... | 44-58 | 22-39 | 19-28 | 15-21 |
| Food and drink..... | 43-71 | 20-33 | 18-22 | 13-18 |
| Paper and publishing..... | 50-62 | 25-29 | 15-24 | 12-16 |
| Electricity, gas, etc..... | 56-61 | 21-25 | 17-20 | 10-00 |
| Mining..... | 56-61 | 21-25 | 17-20 | 10-00 |
| Agriculture, silk..... | 30-83 | 28-35 | ..... | ..... |
| Tailors, etc..... | 29-84 | ..... | ..... | ..... |
| Brewers..... | 41-70 | ..... | ..... | ..... |

Domestics, 4.60, with food, per month. Women servants, 2.95 per month, with food.

| TRADE | 1910 | 1911 | 1912 | 1913 | 1914 |
|--|------|------|------|------|------|
| | Sen | Sen | Sen | Sen | Sen |
| Weaver, male..... | 49 | 43 | 43 | 45 | 46 |
| Tailor, native..... | 57 | 58 | 60 | 64 | 63 |
| Tailor, European..... | 81 | 85 | 89 | 88 | 84 |
| Shoemaker..... | 67 | 65 | 69 | 71 | 72 |
| Confectioner..... | 43 | 45 | 44 | 44 | 46 |
| Tobacco-cutter..... | 61 | 62 | 64 | 66 | 70 |
| Carpenter..... | 80 | 83 | 87 | 88 | 86 |
| Plasterer..... | 83 | 86 | 89 | 93 | 89 |
| Stone cutter..... | 93 | 94 | 100 | 101 | 101 |
| Sawyer..... | 80 | 78 | 85 | 85 | 84 |
| Tile-roofer..... | 95 | 100 | 103 | 105 | 104 |
| Bricklayer..... | 104 | 106 | 106 | 109 | 105 |
| Shipwright..... | 83 | 86 | 91 | 93 | 92 |
| Cabinet-maker..... | 76 | 79 | 83 | 84 | 80 |
| Carriage-maker..... | 67 | 69 | 73 | 77 | 73 |
| Harness-maker..... | 70 | 70 | 70 | 75 | 75 |
| Lacquerer..... | 63 | 68 | 70 | 72 | 71 |
| Gold and silver smith..... | 63 | 66 | 67 | 67 | 65 |
| Blacksmith..... | 69 | 70 | 71 | 73 | 74 |
| Potter..... | 62 | 63 | 63 | 68 | 64 |
| Silk spinner, female..... | 31 | 30 | 31 | 33 | 35 |
| Gardener..... | 77 | 83 | 85 | 85 | 83 |
| Fisherman..... | 54 | 59 | 62 | 59 | 60 |
| Farm labourer, male..... | 39 | 42 | 44 | 46 | 47 |
| Paper-maker..... | 41 | 44 | 46 | 48 | 45 |
| Printer..... | 50 | 50 | 52 | 53 | 55 |
| Day labourer..... | 53 | 56 | 58 | 59 | 56 |
| Male servant, monthly..... | 4.56 | 4.65 | 4.73 | 4.68 | 4.60 |
| Maid servant, monthly (including food)..... | 2.96 | 3.12 | 3.66 | 2.99 | 2.95 |

commodity prices, the average daily wage in 1917 being only 52 sen.

If the matter of wages be looked at more in detail it will be seen that for the five years previous to the European war the wages of the principal occupations did not show much advance, in spite of the increased cost of living.

If the year 1900 be taken as a basis of 100, the index numbers for the above occupations during the fifteen years, taken every five years, will show the ratio of increase in wages, as follows:

| TRADE | 1905 | 1910 | 1915 |
|-----------------------------|-------|-------|-------|
| Weaver, male..... | 103.0 | 148.5 | 139.4 |
| Tailor, native dress..... | 123.7 | 146.2 | 161.5 |
| Tailor, European dress..... | 108.5 | 137.3 | 142.4 |
| Shoemaker..... | 121.3 | 142.6 | 153.2 |
| Confectioner..... | 113.3 | 143.3 | 153.3 |
| Tobacco-cutter..... | 125.6 | 141.9 | 162.7 |
| Carpenter..... | 111.1 | 148.1 | 159.3 |
| Plasterer..... | 111.1 | 153.7 | 164.8 |
| Stone-cutter..... | 108.2 | 152.5 | 165.6 |
| Sawyer..... | 111.3 | 150.9 | 158.5 |
| Tile-roofer..... | 110.2 | 161.0 | 176.3 |
| Bricklayer..... | 112.7 | 165.1 | 166.7 |
| Shipwright..... | 114.3 | 148.2 | 164.3 |
| Cabinet-maker..... | 110.0 | 152.0 | 160.0 |
| Carriage-maker..... | 108.5 | 144.7 | 155.3 |
| Harness-maker..... | 131.9 | 148.9 | 159.6 |
| Lacquerer..... | 104.3 | 134.0 | 151.1 |
| Gold and silver smith..... | 123.8 | 150.0 | 154.7 |
| Blacksmith..... | 114.6 | 143.8 | 154.2 |
| Potter..... | 121.1 | 163.2 | 168.4 |
| Silk spinner..... | 110.0 | 155.0 | 175.0 |
| Gardener..... | 107.8 | 151.0 | 162.7 |
| Fisherman..... | 107.7 | 138.5 | 153.8 |
| Farm labourer, male..... | 106.7 | 130.0 | 156.7 |
| Paper-maker..... | 100.0 | 128.1 | 140.6 |
| Printer..... | 111.8 | 147.1 | 161.8 |
| Day labourer..... | 110.8 | 143.2 | 151.4 |
| Male servant..... | 119.3 | 168.9 | 170.4 |
| Maid servant..... | 114.7 | 189.7 | 189.1 |

FUTURE OF JAPANESE LABOUR

IN forecasting the future of labour in Japan, the extent to which the female element enters into it must be taken strictly into account. Female labour constitutes the main principle of factory economy at present. Taking 17,062 of the more important factories it will be found that 37 per cent of the labour is male and the remaining percentage female. Of the total number of child workers under fourteen years of age, 81 per cent are girls. Nearly half the operatives in Japanese factories are under twenty years of age. It is this predominance of youth and female labour that not only cheapens the factory products of Japan but renders the progress of improvement in labour conditions so slow, for the Japanese female is practically non-assertive under

a master, and capital easily has its own way. Another reason that retards the progress of the labour movement in Japan is that in spite of the increasing urban population, the country is still for the most part a land of small industries, the concentration of factories being yet comparatively at a nascent stage. Of 33,000 factories in Japan employing a total of over 1,000,000 operatives, the vast majority are concerns having from five to ten hands engaged in domestic industry. Nearly all the silk factories are thus run on a small scale, cotton mills being

soon cause a still greater concentration of industry as well as a more menacing congestion of city life, forcing Japan to face her social problems, including the problem of labour. As conflicts between capital and labour acquire intensity with the increase of male over female labour, Japanese law will be obliged to allow greater freedom to labour associations, and admit the sacred right of revolution. With the necessities of life rising out of all proportion to the increase of wages and the relentless attitude of severity toward labourers, the voice of discontent can not but rise against capitalism until authority is compelled to heed. In speaking of the attitude of the Government toward labour organisations a leading Japanese professor says: "The Government is stupidly shortsighted in keeping the labourers crippled by refusing to let them organise, and trying to make amends by giving them crutches in the form of insurance and factory law." The relatively large number of people employed in Government factories, bureaux, and monopoly undertakings further militates against freedom of labour, while the persistence of the apprentice system in trades still tends to restrict the freedom of workers.

Owing to the aggressive disquietude of Japanese labour the authorities have recently been forced to adopt some measures of remedial legislation, which, though late and decidedly defective, are yet better than nothing. The factory act passed in 1911 was not enforced until the Government was compelled by conditions to do so in 1916. The act is palpably imperfect and must be improved, as it seems to favour the employer at the expense of the worker. As the factory law applies only to factories of 15 hands or over, a great many establishments will escape its remedial provisions. In principle the act prohibits the employment of children under twelve years of age in factories, but exceptions are easy. Persons under twelve years of age and women are regarded as protected workers and not allowed to work over twelve hours a day, and not between 10 P. M. and 4 A. M. These protected workers must also be allowed regular holidays and proper rest, and must not be employed on any work involving danger to life and health, decision as to which being apparently left to agreement between employers and factory inspectors. Sick persons and prospective mothers can be employed only under restrictions. The Government enacts the right of the authorities to interfere where factories or portions of them threaten to menace public interest or their employees. Factory owners are obliged to assist the dependents of those

practically the only ones employing large numbers of workers in one place. Domestic industries and small manufactures predominate. So long, therefore, as female labour continues to dominate the industrial life of the nation and industry remains distributed in small factories, labour will fail to exercise any potent influence on public opinion. It has already been shown, however, that in the centres where industry has begun to concentrate, the disaffection of labour is so pronounced as to cause increasing strikes and other forms of labour disturbance, and the question of amelioration is bound to become one demanding a solution.

The rapid development now going on in all spheres of economic activity, and especially in the manufacturing industries, must

killed in factories. The act further makes provision for the proper dismissal of employees and apprentices and for the appointment of factory superintendents. The governors of prefectures are made responsible for the enforcement of the act within their territories, and twenty-one factory inspectors are to assist them in seeing to a proper enforcement of the law. An insurance scheme for labourers at Government factories is proving beneficial, but is hardly comprehensive enough. Various coöperative societies which chiefly benefit the rural population

have been organised, and there are also charity associations, but, as has been said before, what the Japanese labourer wants is not coddling or charity but a chance to demand the value of his labour and freedom to maintain his independence and self-respect. But for this he has yet to fight the battle that has been fought and won in Occidental countries. That the authorities do not yet clearly see the issue may be inferred from the fact that after the Kotoku affair, when thirteen Socialists were executed, 1,500,000 yen was given from the imperial purse to

found a charity association, and the 408 millionaires of Japan were thereby moved to add liberal subscriptions to endow charity. But the wealth of Japan is in the hands of the mercantile and manufacturing classes, who had much better pay a living wage than engage in endowing charity. From what has been said it is evident that all efforts at amelioration of labour in Japan are futile until the worker is accorded the freedom to organise and demand his rights, the same as he does in Europe and America.





NAGARA RIVER, NEAR GIFU

XXXVI. THE PATENT SYSTEM

By MORIO NAKAMATSU, Ex-Director of the Imperial Japanese Patent Office

THERE were in Japan before the Restoration of Meiji, regulations, or rather customs, governing the granting to individuals of certain privileges regarding traffic and trade, something like the monopolies of Europe, but there was no system for protecting industrial property in any form. Persons who discovered or invented new arts, therefore, used to keep them secret, bequeathing them only to their successors or their special pupils. With the fall of the shogunate and the abolition of the feudal system, however, the new Government of the Meiji era adopted the policy of the "Open door and progress," and strenuously introduced into the country institutions of the Occident. Among other things, the Government framed and promulgated what was called "Provisional Rules Governing Patents." According to these rules, patents were given only to new articles of art for seven, ten, or fifteen years, and these periods might be extended according to circumstances. The time was not, however, yet ripe for such legislation, and the next year the Government revoked the rules until further notice. At the same time the Government instructed local authorities to report to the Department of the Interior detailed accounts of inventions made within their respective jurisdictions, and thus announced its intention to protect inventions. Since then the Government has had to face many

difficult problems of great moment, and at one time it had even the great task of quelling a civil war of a serious nature. Thus, for more than ten years the Government had no leisure to turn its attention to the protection of industrial property. The internal disturbances were at last subdued and measures have been taken by the Government since the Restoration for the development of the country, which, since they have begun to work, have resulted in commerce and industry making steady progress.

The first subject which attracted the attention of the Government in the way of protection of industrial property was the protection of trade marks, and in the seventeenth year of Meiji (1884), Regulations Governing Trade Marks were promulgated and enforced. These were followed by Regulations Governing Patents, which were promulgated in April of the eighteenth year of Meiji (1885), and took effect from July of the same year. Viewed from to-day these trade mark and patent regulations were very imperfect, but in protecting new inventions and legitimate trade marks they were just as good as similar legislation of Europe and America.

The Government was not, of course, satisfied with these regulations, and sent officials abroad to study the subject of the protection of industrial property. Taking the reports of these officials into consideration, in the twenty-first year of Meiji (1889), the Govern-

ment promulgated new patent regulations and also designs regulations, and amended trade mark regulations, enforcing them from February of the next year. By these regulative enactments applications and requests relating to patents, designs and trade marks, which under former regulations had been filed through local authorities, were now filed direct at the Patent Office, and examiners of that department investigated them and decided whether they should be granted or not. Persons not satisfied with the decision of first instance could request re-examination, from which there was appeal to judges of the Patent Office. The above mentioned three regulations form the basis of the present system for the protection of industrial property, the laws and rules now in force being compiled from them by introducing thereto amendments and additions required by necessity or suggested by experience.

One thing to be noted here is the fact that when the three regulations referred to were promulgated, the foreigners in Japan enjoyed the privilege of extraterritoriality and were not amenable to the Japanese law. At the same time, they could not benefit themselves through the protection given by the regulations, and if their industrial property was infringed by the Japanese, there was no way for them to obtain satisfaction from the infringers. When, however, the Treaty of Commerce between Japan and Great Britain

was revised, the Japanese Government promised to extend to the British subjects the protection with regard to patents, designs, and trade marks, and also to join the International Union for the protection of industrial property, and at the same time the British Government waived the privilege of extraterritoriality. The other powers followed the British Government in revising their treaties. Now, in order to meet the altered conditions caused by the revision of the treaties of commerce, the Patent, Designs, and Trade Marks Laws and Rules were amended, but these amendments were introduced so as to make the laws applicable to foreigners as well as to Japanese, in other respects remaining practically the same as before.

In Japan there is a special kind of invention, called "Utility Models," protected by a special law. Utility models are new industrial devices of practical use pertaining to the form, construction, or combination of articles, which though new and useful, are not dignified enough to be protected with patents. The law protecting such models was first promulgated in the thirty-eighth year of Meiji (1905), taking effect from July 1. In the forty-second year of Meiji (1909) all the four laws and rules were amended and brought to the form in which they are now in force, although some minor changes have been made since then, being necessitated by treaty with other powers, etc.

The above is a short history of the legislation in relation to industrial property in Japan. There will follow a summary of the Japanese Patent Office practice.

PATENTS

A PATENT is granted for any novel industrial invention, and any foreigner who is a subject or citizen of a country with which Japan has a reciprocal arrangement for the mutual protection of industrial property, or any person of any nationality residing, or having a place of business in Japan, or in a country where Japanese industrial property is protected, can apply for a patent for an invention in his possession. The duration of a patent right is fifteen years from the date of registration, which can be extended in some rare instances for a period of not less than three years, and not more than ten, if the invention is of great importance and the patentee has not realised, for good reasons, adequate profit from the patent during its existence.

Persons not in Japan are not allowed to make an application or request, or take any other step with regard to a patent, except through an agent residing in Japan, and the documents which must accompany applications by foreigners are power of attorney and certificate of nationality given by a notary

public or any other competent authority, and the signature of the applicant affixed to them must be legalised.

The Examiners of the Patent Office examine applications as to their novelty and give a decision as to whether the patent should be granted or not. Against the decision of an examiner, re-examination may be requested. In order to have a patent invalidated, or to have the limits of a patent right determined, trial may be requested. Against a decision on re-examination, a decision of an Interference Examiner or a judgment on trial, recourse may be had to trial-on-appeal, from which appeal may be made to the Court of Cassation, but only on questions of law and with regard to cases appealed from trial, or from a decision of an Interference Examiner.

A patent is liable to cancellation for non-working, or discontinuation of working, of three years, unless sufficient reasons be given therefor.

TRADE MARKS

TRADE marks must consist of letters, devices, or signs, or their combination, and must be distinctive and conspicuous. They may also be registered with designation of colours. A mark similar to one's own trade mark, and to be used with the same kind of articles, may be registered as an associated mark.

A mark coming under one of the following items may not be registered:

(1) One containing a device identical with, or similar to, the Imperial Chrysanthemum Crest.

(2) One identical with, or similar to, the national flag, the army or navy ensign, a decoration, a medal of merit or a badge, or the national flag of a foreign country.

(3) One liable to disturb public order or morals, or to deceive the public.

(4) One identical with, or similar to, a mark commonly used on the same kind of goods.

(5) One identical with, or similar to, a mark known to the public to belong to another person and to be used on the same kind of goods.

(6) One identical with, or similar to, the device of the Red Cross on a white ground, or the name of or characters for Red Cross or Geneva Cross.

(7) One containing a device identical with, or similar to, a prize medal, a diploma of honour, or a certificate of merit, of an exposition or competitive exhibition held by or with the permission of the Government, or of an exposition held in a foreign country by the Government thereof, or an international exposition held in a foreign country with the permission of the Government thereof, not obtained by the party using it in his trade mark.

(8) One containing a likeness, the personal name, or the firm name, of another person, or the title of a juridical person or partnership, unless with permission.

(9) One identical with, or similar to, a trade mark of another person, in the case of which one year has not elapsed since the loss of validity of the registration thereof, unless it has remained unused for more than one year previous to the loss of validity of registration.

However, marks used with good faith from before July 1, 1899, can be registered notwithstanding the Item 5 above.

To apply for registration of trade marks, one application for one trade mark must be filed with respect to one class of articles, according to the Patent Office classification. Documents to accompany application are five copies of specimen marks, power of attorney, and certificate of nationality, the latter two documents to be executed as in the case of a patent application. When there are two more similar applications, all applicants being entitled to obtain registration, the first application will be registered, and if they are made at the same time, none of them will be registered, unless the applicants make arrangements among themselves. As to examination, re-examination, trial, and trial-appeal, they are the same as in the case of patents. The duration of registration is twenty years, and is renewable.

DESIGNS

NEW industrial designs with reference to form, pattern, colouring, or their combination, applicable to articles of artistic worth, are registered. One application for one device must be filed with respect to one class of articles, according to the Patent Office classification. The application must be accompanied by three copies of the drawing and power of attorney and certificate of nationality. The treatment of a design application is the same as that of a patent application, except that in the case of a design application the decision on re-examination is final, there being no appeal therefrom.

The duration of design rights is ten years.

UTILITY MODELS

UTILITY models are new industrial devices of practical use pertaining to the form, construction, or combination of articles. The treatment of utility model applications is the same as with patent applications, except that with utility models the decision on re-examination is final, there being no appeal.

The duration of a utility model right is three years, which term can be renewed twice, first for three years and then for four, the total duration being, thus, ten years.



DISTANT VIEW OF YODOYABASHI BRIDGE, OSAKA, SHOWING OFFICES OF BANK OF JAPAN, JAPAN COTTON TRADING COMPANY, AND MESSRS. TAKATA & CO. ON THE LEFT, AND NEW TOWN HALL IN THE DISTANCE

XXXVII. MANUFACTURING INDUSTRIES

INDUSTRY IN OLD JAPAN—FORMS OF INDUSTRY—OPERATIVES—THE COTTON INDUSTRY—
THE WOOLLEN INDUSTRY—THE BREWING INDUSTRY—MACHINE-MAKING—CERAMICS—
THE LACQUER INDUSTRY—THE SILK INDUSTRY—OTHER INDUSTRIES

THE progress of Japanese manufacturing industry forms one of the romances of modern enterprise. In 1868, when the Meiji era opened, there was but one factory in the country, and the only articles of domestic industry and commerce were woven goods, earthenware, copper ware, and lacquer. Industry was wholly manual, and satisfied if it met the demands of the local community. During the fifty years since then the progress of Japanese industry has been nothing short of phenomenal. Even as late as 1872 all industry was still domestic, carried on by the families of individual households. But by 1883 no less than eighty-four factories had appeared, with machinery aggregating 1,382 horse-power in steam, and 365 horse-power in water. Ten years later the number of factories had grown to 1,163, the steam horse-power totalling 31,165 and the water horse-power 4,122. By 1909 all factories, including those in homes, numbered 33,000 with total horse-power in steam, gas, water, and electricity amounting to 419,657. As far back as 1872 there were no imports of raw materials; in 1895 imports of such materials were valued at 40,000,000 yen, and in 1910 imports of raw cotton alone exceeded 158,000,000 yen in value. Omitting government factories and insignificant

domestic undertakings, the number of legitimate factories is now about 20,000, using 21,145 engines or motors, representing a horse-power of 1,321,320, having a paid-up capital of over 1,000,000,000 yen, and employing about a million operatives.

INDUSTRY IN OLD JAPAN

PRIOR to the opening of Japan to the world there was no system of technical education. Industry, so far as it existed, was local, not national, the various daimyo keeping their hereditary mechanics and craftsmen, who transmitted their knowledge to the next generation by means of apprentices. The craftsman or artisan made utensils, swords, and arms, or wove cloth, for the livelihood afforded by his master, and he and his were usually held in contempt by their military superiors. Nevertheless there were many who developed remarkable skill in handicraft and showed an intuitive love of art and achievement for their own sake, making for themselves names that are still honoured in the annals of art and industry. The arrival of Portuguese and Spanish merchants with manufactures from Europe lent some measure of impetus to industry, and with the downfall of feudalism and the establishment of schools began a period of technical education in science, engineering,

chemistry, mining, and metallurgy, while many students were sent abroad to acquire the rudiments of knowledge of manufacturing industry. To this policy the Government has devoted its untiring attention, with the result that Japan is to-day enabled to sell more goods than she buys. In fact, many of the nation's industries which but a few years ago were in a nascent stage and are now prominent, owe their rapid development largely to Government assistance and encouragement. Cotton and silk spinning, shipbuilding, cement-making, glass-making, match-making, gas works, brick-making, loom-weaving,—none of these now profitable enterprises could have attained their present development so quickly had it not been for Government help. Many of the national industries were started by the Government itself. After reaching a paying basis they were handed over to private enterprise, the only ones still under Government auspices being the Senju Woollen Mills, the Wakamatsu Steel Works, and the Government Printing Bureau, as well as the Imperial Mint.

The new industries are purely utilitarian in contrast to the old, which were so largely æsthetic. So long as Japan was proud to be distinctive in art she had little difficulty in holding her own against the cruder

artistic productions of the West, but she can hardly expect to surpass the West in the realms of shipbuilding and shoemaking! In the course of her rise as an industrial nation Japan has discovered, however, that the profits from the minor arts and crafts, for which she was so duly celebrated, were insufficient to support her army and navy and to make her the leading power of the East. Only by manufacturing staple commodities on a large scale could she hope to become a first-class power. Consequently, the antiquated industrial system of the nation has been almost completely transformed after the Occidental manner. The result is a deterioration of the old arts and crafts and a remarkable expansion of modern industry.

FORMS OF INDUSTRY

BROADLY speaking, as has been already suggested, Japanese industry is divided into factory operations conducted according to the Western system, and the domestic industries long indigenous to the country and carried on in the homes of the people. The factories of Japan simply aim at supplying the manufactures formerly imported from abroad, or those especially demanded by East Asia. One reason why, in certain lines of industry, efficiency is so difficult to achieve is because the operatives are engaged in making that of which they do not know the use, and in which they take no personal interest. It stands to reason that the artisan can not do so well on an article of which he does not know the use as he can on an object such as is used everywhere around him. Over the factories and their output the Government has to exercise careful supervision, in spite of which the results are still not always satisfactory to the consumer, while the attitude of the authorities towards domestic industry, on the other hand, is merely one of encouragement and protection by accommodation in loans and the supplying of machinery. Many of the larger manufacturers, in order to hasten completion of contracts from abroad, sublet in part to domestic concerns, which accounts for the lack of uniformity in quality often complained of by foreign consumers. The silk industry, especially, is in a transition stage from manual weaving to machine-made goods, but most of the spinning in silk and cotton is now done on modern machines. As to chemical industry, the results of modern science are being skilfully applied in every branch. The making of machinery has not yet made much progress, though parts are supplied in increasing quantity. At present the most important of Japan's industries are silk and cotton

spinning and weaving, sugar, matches, plaits, porcelain, matting, to say nothing of her mining and agricultural industries, which are duly treated elsewhere in this volume.

OPERATIVES

IN regard to the character and efficiency of its operatives, Japanese industry stands out in marked contrast to the great industrial undertakings of Occidental countries. This is especially so in the absence of any great number of skilled artisans and labourers, as the term is understood abroad. Another feature in which the Eastern and Western systems appear in striking contrast is in the predominance of female operatives in Japan. As most of the factories in this country date from a period subsequent to the war with China in 1895, the lack of skilled labour is not to be wondered at. Even in the Government arsenals, steel mills, and shipyards, where the labourers are at their best, all work is more or less characterised by inefficiency, being capable of a much less daily output, man for man, than is the case with the Occidental artisan. Female operatives, on the other hand, are usually more deft in factory labour than the women workers in Western countries, which contributes materially to the success of many leading Japanese industries, like cotton, tea, and silk. In silk-reeling, women do 90 per cent of the work; in weaving, cigarette making, network, and cord making they do 80 per cent; while in drawn work, mat making, and straw plaiting they do 70 per cent. Over 60 per cent of the cotton mill hands are women, a similar percentage of females prevailing in such industries as paper making, meat packing and canning, and fruit canning. In short, Japanese industry is as yet in the hands of women, in contrast to Western industry, which is for the most part man's work. The Japanese are beginning to discover, however, that women are more adapted to domestic industry than to the factory system, and as time goes on skilled male citizens will come more and more into prominence.

Of some forty forms of industrial activity now prevailing in Japan the cotton spinning business easily absorbs the largest share of capital, followed by mining, electricity, and shipbuilding. Agriculture absorbs a greater aggregate of capital than trade, manufactures, or transportation.

COTTON INDUSTRY

No department of Japanese industry has made more phenomenal progress than that of cotton. The first cotton mill in Japan was established at Kagoshima in 1862, but, although the main imports of the time were of

this fabric, no serious attention was devoted to domestic production until mills began to rise in Osaka between 1886 and 1889, when some 215,000 spindles were registered. By 1900 this number had jumped to one million. At the end of 1915 the number of spindles had grown to 3,162,832, with 181 mills in operation and many more in course of construction. Such progress, of course, is not greatly to be wondered at in the foremost of Oriental countries, where cotton is the main article of clothing, and the particulars of Japan's progress in the cotton industry must be taken in some measure as representing her general industrial advance in recent years, because it was largely on account of her success in cotton manufactures that she was emboldened to launch out in so many other lines. Japan is not in any important sense a cotton-growing country, since she harvests only from 7,000 to 10,000 bales annually in the south, and that a short fibre like Chinese cotton, and used only for inferior purposes. In Korea, however, serious efforts are being made to cultivate superior raw cotton from American seed, but it is not yet produced in marketable quantities. Japan gets about 60 per cent of her cotton from India, 25 per cent from the United States, eight per cent from China, and about two per cent from Egypt, the total imports being valued at some 270,000,000 yen. Owing to the demand for coarser counts the raw cottons are usually mixed in Japanese mills, especially for the use of hand looms. But the Japanese are turning more and more to finer qualities, and by combing are successfully producing yarns up to 60's counts on ring frames, though most of this work is still confined to thick numbers. The average is probably growing finer, for it appears that in 1913, for example, Japanese mills consumed 690 bales per thousand spindles. In 1914, however, the ratio fell to no more than 511 bales per thousand spindles, which is still large as compared with Indian spindles, which consume 398 bales per thousand spindles, and British, which consume only 77. Japanese mills still suffer from inability to produce uniformity of quality, yarns of the same count often differing seriously in size of filament, though such defects do not apply to all the mills, but chiefly to those without skilled operators, where the machinery is overworked and hygienic conditions are bad. The average monthly output is about 170,000 bundles of yarn, about 100,000 of which are consumed at home, the balance going chiefly to China. Exports of Japanese cotton yarn to China began in 1890, when 31 bundles were sent as samples. In ten years China was taking 340,000 bales a year, and now she takes an aggregate amounting to more than 360,000 bundles annually.



MEN PROMINENTLY ASSOCIATED WITH THE DEVELOPMENT OF THE TEXTILE INDUSTRY

MESSRS. Y. KINBARA, Managing Director, Mousseline Boshoku K. K.—KATSUTARO INABATA, President and Director, Mousseline Boshoku K. K.—S. KAWASAKI, Director, Mousseline Boshoku K. K.—T. WADA, President, Fujigasu Spinning Co., Ltd.—DR. KYOZO KIKUCHI, President, Amagasaki Spinning Co., Ltd.—DENSCHICHI ITO, President, Toyo Boseki Kabushiki Kaisha—HISAO MATSUO, Managing Director, Jomo Muslin Co., Ltd.—M. KITA, President, Japan Cotton Trading Co., Ltd.—A. YAMADA, Managing Director, Japan Cotton Trading Co., Ltd.

Cotton weaving is of a still later development than spinning in Japanese industry. Ten years ago the number of looms was 9,225, with an annual output of about 135,000,000 yards. In 1910 looms numbered 17,072, and in 1916 they were over 30,000 in number, which, of course, is still nothing compared with the 800,000 of Lancashire. For the most part, it is only possible as yet for Japan to compete in markets demanding coarser goods, and therefore her rivals in this line are Oriental rather than Occidental. Even the finer goods that Japan is sending to India are inferior to those produced in Lancashire, which they vain would emulate. In the final issue successful competition depends on skill, and in this respect it will take Japan some time to overtake the more advanced weaving centres of the West. The most significant feature of the situation at present is that

Japan is now able to meet the domestic demand for cotton piece goods, which may be seen from the fact that while imports of such goods totalled in value 25,000,000 yen in 1906, they fell to 10,000,000 yen in 1913 and to 5,000,000 in 1916. Most of Japan's cotton imports now are among those difficult for the country to manufacture, such as satins, Italians, umbrella cloths, cotton velvets, Victoria lawns, and so on. On the other hand, Japan exports chiefly coarse qualities like jeans, T-cloths, shirtings, sheetings, and cotton flannels of low grade, and as flimsy in quality as they are low in price, the demand being for the most part in India, China, the South Sea regions, and Australia. The value of the total output from Japan's cotton looms is now about 250,000,000 yen annually, of which about 125,000,000 yens' worth is consumed at home.

WOOLLEN INDUSTRY

THE woollen industry, unlike silk, is not indigenous to Japan, and, therefore, the output is not yet of a quality and price able to pass the goods in all markets. Even wool would have remained more or less of an exotic but for its conversion into *mousseline de laine*, a light fabric which the Japanese have made their distinctive specialty and incorporated into their national dress. The manufacture of this wool muslin, first for the home trade and more recently for export, forms the chief part of Japan's wool-using industry. In recent years the use of Western clothing has been greatly extended in Japan, especially in banks and business offices, and for a few years Japanese mills have been weaving union worsted coatings, made with worsted across a cotton warp. However, the best cloth for

foreign suits still comes from British mills. Before the war Japan's muslin looms were dependent on Germany, England, and Australia for their tops, but when supplies were suddenly cut off by the war they began installing more machine combs, and are now better able to handle raw wool. Wool-raising is impossible in Japan to any great extent owing to lack of pasture, the coarse bamboo grass of the country being fatal to sheep, and consequently the country must always look abroad for its raw material. The war also lent impetus to worsted spinning, the Japanese mills having hitherto been accustomed to weave more than they spun of worsted yarn. Japan's first woollen factory started in 1877, as a Government experiment, and another one, the Tokyo Woollen Company, began in 1895 with a paid-up capital of 1,250,000 yen. The Nippon Woollen Company was organised in 1896, with a paid-up capital of 2,625,000 yen, and other companies started later. The Government mill makes army cloth, and the others for the most part muslins, blankets,

and serges. Owing to technical difficulties of blending and mixing, as well as scarcity of noils and wastes, other kinds of cloth are still in an undeveloped stage, while the figured cloths produced are yet also of an inferior quality. The number of spindles working on carded wool in Japan is about 50,000, and the two arms of the industry have a capital of some 20,000,000 yen. Most of the imports from England are of the type generally known as army cloths, consisting chiefly of black or blue overcoatings, about seven and one-half million yards being imported annually before the war, worth about 2 shillings a yard, but recently the volume has fallen to one-third that yardage. English worsted coatings and light worsted stuffs to the amount of 3,500,000 yards a year, averaging 2 shillings to 3 shillings a yard, come to Japan. A good deal of this trade was through German agents, but the war did away with that, and if British firms would take up the matter in earnest no doubt extensive business could be done, as, for years to come, Japan will continue to

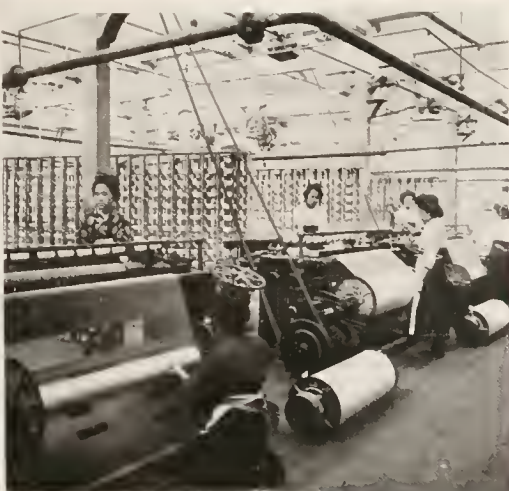
depend on Western countries for her best cloths. The total output of Japan's woollen mills is valued at about 40,500,000 yen a year. The annual value of Japan's textile industries reaches over 381,000,000 yen.

THE ORIENTAL MUSLIN COMPANY, LIMITED

THIS important manufacturing enterprise, known under its Japanese title as the Toyo Muslin Kabushiki Kaisha, is among the leading industrial concerns of Japan, and during the past year or two has made remarkable progress. So pronounced has been its success that it has doubled its capital in ten years, and its output has been enormously increased. Nevertheless, so great has been the demand for cotton goods and muslins for export, that it has been found quite impossible for the company to meet it. This condition has faced all the leading cotton mills of Japan, and a veritable boom has been created.



JAPANESE HOUSES ALONG A RIVER IN TOKYO



TOYO MUSLIN KABUSHIKI KAISHA (THE ORIENTAL MUSLIN CO., LTD.): GENERAL VIEWS OF FIRST AND SECOND FACTORIES—SPINNING SHED—TWO VIEWS OF THE WEAVING SHED—PACKING ROOM

The Toyo Muslin Kabushiki Kaisha was organised in January, 1907, with a capital of Yen 2,000,000, to weave muslin. An excellent factory site was secured at Kameido, in the suburbs of Tokyo, and a modern plant was installed. Almost at once the products of the company sprang into favour among the manufacturers and wholesalers of piece goods. The quality of the product was very high, and thanks to the development of trade generally a strong demand existed for all that could be turned out. Subsequently a second factory had to be established, and the capital of the company was increased to Yen 4,000,000. In view of the changed conditions of the local and foreign markets, the company is now contemplating the installation of another plant to weave satins, fifty-four inches wide. That such a new branch can be added to its already widely ramified business, indicates what progress the Toyo Muslin Kabushiki Kaisha has made. It is producing cottons and muslins of an excellent quality, and the directors are keenly alert to the urgency of still widening the scope of the operations and increasing the output. They have already completed the annex to the factories, and the new plant will have been installed before this volume goes to press. With this additional weaving and spinning machinery it is the hope of the company that they will be able to give full satisfaction to their domestic and foreign customers.

The factories of the company have a total floor space of 7,871 *tsubo*, and the offices and warehouses cover in addition 26,304 *tsubo*, the entire plant being one of the largest in the country. The factories are single-story brick buildings of modern and sound design. The offices and dormitories for the workpeople are of wood, and are two stories high. Employment is found in the factories for 180 boys and men, and 1,500 girls, and the annual wages bill is Yen 337,550. The annual output is 6,734,900 yards of muslin and 3,439,800 yards of cotton goods, this great production being absorbed by the wholesale dealers in Tokyo, Osaka, and other centres, and by foreign buyers in China, India, the South Sea Islands, and elsewhere. The export business of the company is increasing rapidly.

The officers of the Toyo Muslin Kabushiki Kaisha are: President, Mr. Tahai Mayekawa; Managing Director, Mr. Kyoichi Kanbe; Manager, Mr. K. Tanaka; Directors, Messrs. Y. Owaki, C. Kikuchi, F. Watanabe, T. Yamahoshi, and I. Wakao; Inspectors, Messrs. T. Yoshida, G. Yasuda, and K. Watanabe. A very high compliment was paid the company in April, 1917, when the Premier of Japan, Count General Terauchi,

visited the works, and was shown over them by the President and other officers. Count Terauchi, who is very desirous of encouraging Japanese industry, set a precedent by this visit, as no Premier had ever before made such a visit of inspection, and the great honour paid to the model works of the company was highly appreciated. The occasion of this distinguished visit is the subject of one of the illustrations published on another page of this work. (See page 540.)

THE TOYO BOSEKI KABUSHIKI KAISHA (THE ORIENTAL SPINNING COMPANY, LIMITED)

SINCE the outbreak of the war the textile industries of Japan have been developed to a remarkable extent, but it must not be thought that the weaving and spinning of fabrics in Japan is only of recent growth. In the case of the Toyo Boseki Kabushiki Kaisha, or the Oriental Spinning Co., Ltd., we have an organisation that dates back, in its origin, over forty years, for the present concern is only an enlargement by amalgamation of two of the first spinning companies to be established in Japan. These were the Miye Spinning Co., Ltd., and the Osaka Spinning Co., Ltd. The latter was founded at Osaka in 1879 with a capital of Yen 280,000, and at the time of the amalgamation was a flourishing enterprise with a capital of Yen 5,000,000. The Miye Spinning Co., Ltd., was started in July, 1886, with a factory at Yokkaichi. Its initial capital was only Yen 220,000, but when it became absorbed in the Oriental Spinning Co., Ltd., it had a capital of Yen 10,250,000, and operated 269,100 spindles and 5,330 looms. So it may be seen that the industrial strength taken over by the Oriental Spinning Co., Ltd., when the amalgamation took place in 1914, antedated the war, and represented a vast amount of pioneering work, and a flourishing enterprise, which only needed the extra stimulus of the war to make it one of the greatest in the world. As a matter of fact, the Oriental Spinning Co., Ltd., is to-day one of the two largest spinning concerns in Japan, the other being the Kanegafuchi Spinning Co., Ltd.

The capital of the amalgamated concern was originally Yen 14,250,000, but since that time the business has developed to such an extent, and the producing capacity of the various mills has been so increased, that the capital has been augmented to the present figure of Yen 25,000,000, which was fixed in September, 1916. The Oriental Spinning Co., Ltd., has an annual production of 220,000,000 yards of textile fabrics of all kinds, and its capacity is said to be the

third greatest in the world. It operates 486,376 spindles and 11,353 looms in sixteen different mills, situated in Tokyo, Kyoto, Osaka, Miye, Aichi, Echime and Saitama Prefectures. It may be added that the spindles operated by the company represent 16 per cent of the total number in Japan, and the looms 37 per cent. The amount of cotton yarn spun annually is 356,000 bales, and the textiles woven constitute the 220,000,000 yards mentioned above. Cotton yarn and textiles for domestic consumption are valued at Yen 48,300,000 per annum, and for export the production is valued at Yen 16,800,000 per annum. The principal articles of production are cotton yarn (Nos. 8 to 43), twisted yarn (Nos. 20 to 43), rough sheetings, drills, thick sheetings, T-cloth, calico, white shirtings, etc. In the different mills 5,500 men and 25,000 women are employed day by day, the annual pay bill being approximately Yen 3,620,000. That such a gigantic enterprise is a big financial success goes without saying. The last dividend declared was 35 per cent, and even then Yen 2,760,000 was carried forward to the next period. The reserves total Yen 11,100,000.

The directorate of the Oriental Spinning Co., Ltd., comprises: Messrs. D. Ito (President), Dr. T. Saito (Professor of Technology), F. Abe, Dr. S. Hattori (Professor of Technology), T. Oka, A. Matono, and O. Shoji. The Auditors are Messrs. M. Kuki, S. Kawakita, K. Kamino, T. Kumagai, K. Seo, and H. Abe.

THE FUJIGASU SPINNING CO., LIMITED

THE services rendered to the spinning industry in Japan by Mr. Toyoji Wada, President of the Fujigasu Spinning Co., Ltd., are very well known, and it may not be out of place to record them as an introduction to a description of the operations of the company.

The Fujigasu business was established in 1896, the company starting with a capital of Yen 2,000,000. With such a capital and a strong plant, the outlook seemed favourable enough for the company, although the industry was then in its infancy, and it was realised that many initial difficulties had to be surmounted. The plant comprised 28,256 spindles for cotton yarn, 5,104 spindles for cotton twists, and 5,940 spindles for silk spinning, with water motors developing 1,196 horse-power. But from the start the company appeared to be in difficulties. Apart from mishaps in the mills, and other difficulties, the economic situation following on the China-Japan War was very serious, and before the effects of this condition had disappeared, the Boxer Rebellion in China

arose, and further complicated affairs. Monetary circulation almost ceased, loss after loss was incurred in the trading operations, and the company's products lay unsold in vast quantities. So bad was the condition of the Fujigasu that the Yen 50 shares fell to Yen 15 or less. The directors were faced with the serious question of calling in somebody to reorganise the entire business, or letting the grass grow in the mill yards, and the machinery rust out. It was at this juncture that the services of Mr. Wada were sought. Mr. Wada was at that time abroad in the interests of the Mitsui family, investigating spinning and weaving in Europe. His position was a very lucrative one, but when he was urged to take the Presidency of the Fujigasu Company, and to endeavour to save an important section of the Japanese textile industry from ruin, he agreed. That was in January, 1901.

Since then Mr. Wada has devoted all his energies to the service of the Fujigasu Company, and incidentally to the betterment of conditions throughout the spinning and weaving industries of Japan, and his efforts have proved extraordinarily successful. Mr. Wada made some drastic changes in the organisation of the company, and in its methods of doing business, and the result was quickly visible in the improved financial condition of the company. At the settlement of accounts for the second half of 1902, the company's losses were entirely made good, and the shareholders received their first dividend since the formation of the company eight years before. From that time onward the affairs of the Fujigasu have been always prosperous, and dividends maintained at an average of 13²/₁₀ per cent per annum. From 1902 down to the time of writing the company has developed in all directions. Its capital to-day is Yen 18,000,000, of which Yen 13,000,000 is paid up. This means that the paid-up capital has been increased six and one-half times since Mr. Wada took charge. Loans of Yen 3,240,000 have been paid off out of revenue, the reserves have been built up to Yen 7,156,235, and the sales of products have risen to twenty-one times what they were in 1901. Meanwhile the shareholders have received handsome dividends, that for 1916 being at the rate of 16 per cent. Such a change in the company's affairs is recognised to be almost entirely due to Mr. Wada, and it is gratifying to learn that in 1916, the shareholders, represented by Baron Morimura and Mr. H. Hibiya, presented Mr. Wada with their thanks and a cheque for Yen 100,000.

It must not be forgotten either that Mr. Wada, in promoting the interests of the Fujigasu Company has done a great service



"TENJU" MASKED, IN PROCESSION OF
SHINTO TEMPLE FESTIVAL

to the entire spinning and weaving industry. He introduced new methods, improved the quality and quantity of the outputs, and took as active a part as any man, in making the industries stable and of first rate national importance. To-day the Fujigasu Spinning Co., Ltd., operates ten mills. There are five at Oyama and two at Kawasaki, in addition to one each at Onagigawa, Oshiage, and Hodogaya. The number of spindles has increased far beyond any conception of the magnitude of the business that the original founders might have had. There are 292,168 cotton yarn spinning spindles, 71,028 twist spindles, 62,040 silk spinning spindles, and 1,774 silk and cotton weaving looms. At the half-yearly meeting in June, 1917, the financial report disclosed a most favourable state of affairs, and Mr. Wada was able to speak in optimistic terms to the shareholders regarding the future of the company. It was then shown that the net profit for the half-year was Yen 3,382,874,

which, with Yen 2,143,938, brought forward from the previous term, was available for distribution. A substantial increase in the reserves was made, bonuses were paid, and then a dividend of 28 per cent per annum was declared. A big change from the situation of seventeen years before!

SETTSU SPINNING AND WEAVING CO.,
LTD. (SETTSU AND AMAGASAKI
COTTON SPINNING CO.)

THE history of these two companies which are now amalgamated into one of the largest concerns of its kind in the world, practically embraces the whole period since cotton spinning began in Japan. The origin of the business now controlled by the Settsu Spinning Co., Ltd., known by its Japanese title as the Settsu Boseki Kabushiki Kaisha, dates back to the time when the Hirano Cotton Spinning Company was formed in the year 1888, with a capital of Yen 250,000. In the following year the first mill of the company commenced operations in the town of Hirano, near Osaka, with 5,000 spindles of ring frames. In 1901 the sphere of the company's business was greatly enlarged by the extension of the plant and by the purchase of a mill which had been erected in Osaka. These additions gave the company about 40,000 spindles of ring frames.

One year after the establishment of the Hirano Spinning Company, the Settsu Cotton Spinning Company was formed, steady progress being made year by year. The Settsu Company amalgamated with the Takata Cotton Spinning Company, and then followed an amalgamation of the Hirano and the Settsu companies, under the title of the Settsu Cotton Spinning Company. Following this amalgamation the new company erected two additional mills, and so marked was the progress that by 1909 the paid-up capital reached Yen 1,735,000, the concern operating no fewer than 156,000 spindles. When the great development took place in Japan's textile and other industries, the Settsu Company considerably enlarged its plant and took up several new lines of business, such as weaving, in addition to cotton spinning. In 1916 the paid-up capital of the company was Yen 2,100,000, and there were 215,000 spindles for spinning and doubling as well as 560 sets of looms.

On the other hand, the Amagasaki Cotton Spinning Company was established in 1889, the mill being situated in the town of Amagasaki, near Osaka. At that time the company had a capital of Yen 500,000 and operated 10,000 spindles of ring frames, but by 1894 the number of spindles had been increased to 31,000. In the course of the



TAKATA AND SETTSU MILLS OF THE AMALGAMATED COMPANIES, SETTSU SPINNING AND WEAVING CO., LTD., AND SETTSU AND AMAGASAKI COTTON SPINNING CO.



TEMPORARY STAGE ERECTED IN THE STREET ON FESTIVAL DAY

years 1908 to 1916, amalgamations were effected with the Toyo Spinning and Weaving Co., Tokyo Spinning and Weaving Co., and the Nippon Cotton Spinning Company. While the amalgamations were proceeding two new mills were added. In 1916 the capital of the company was Yen 10,000,000, and the total number of spindles was 343,500 for spinning and 130,500 for doubling, as well as 2,775 sets of looms.

In the Summer of 1917 the amalgamation of the Settsu and the Amagasaki Cotton Spinning Companies was consented to at general meetings of the shareholders in both companies. The capital of the combined concern was fixed at Yen 30,500,000, and it was agreed to run the two businesses separately till May, 1918, when the whole business will be merged under the title of the Settsu Spinning and Weaving Co., Ltd.



A FUNERAL PROCESSION READY TO SET OUT

The President of the combined company is Dr. Kyoze Kikuchi, M. E., M. I., Mech. E. (London). Dr. Kikuchi is a prominent figure and one of the pioneers of the textile industry in Japan. He was graduated from the Imperial College of Engineering in Japan, in 1884, and studied cotton spinning and weaving at the Manchester Technical School until 1888. On his return to Japan he started the Hirano Cotton Spinning Company, in 1889. After the establishment of the Hirano, Settsu, Amagasaki, and Nippon Cotton Spinning Companies, Dr. Kikuchi devoted himself entirely to the services of these concerns, which he has served as superintending engineer, managing director, and president for thirty years. He was President of both the Settsu and the Amagasaki Companies prior to the amalgamation, and when the combination comes into force in 1918 he will be President of the new organisation.

The present members of the Board of Directors in these companies are as follows: Messrs. J. Tashiro, T. Matsumura, S. Matsumoto, S. Tsukaguchi, and M. Fukumoto. The variety of cotton manufactured by the companies which are to form the Settsu Spinning and Weaving Co., Ltd., ranges from 8's to 120's; the cotton cloth is thin-grade shirting and calico, 36-50 inches in reed space. Among the different varieties of the yarns turned out the principal ones are 16's, 20's, 42's, 60's, 80's, and 100's, the latter four kinds being usually doubled, gassed, and mercerised.

The following table shows the number and capacities, etc., of the different mills. They are for the most part two-storied modern buildings, in which the motive power is steam or electricity. The amount paid annually for salaries by the combination is Yen 427,700, and the wages total Yen 4,680,000. The latest returns show the annual output to be about 327,600 bales of yarn (about 410 pounds to the bale), of which quantity about 50 per cent is consumed in the home markets, the balance being exported. Cloth piece goods are produced to the extent of 1,153,100 pieces (average, 60 yards per piece), this production being utilised in equal proportions for local domestic requirements and exports. The total value of the outputs of the mills is Yen 56,565,200 per annum. The exports go chiefly to India, China, and other countries in the Far East. Principal imports of raw materials comprise American, Chinese, Indian, and Egyptian cotton.

The head office of the Settsu Spinning and Weaving Co., Ltd., is at Bingo-machi, 3-chome, Higashiku, Osaka.



BIRD'S-EYE VIEW OF HIOGO MILL OF KANEGAFUCHI BOSEKI KAISHA (KANEGAFUCHI SPINNING CO., LTD.)—THE COMPANY'S PRIVATE HOSPITAL AT HIOGO MILL

| MILL | NO. OF SPINDLES | NO. OF LOOMS | DIMENSIONS OF MILL (Tsubo*) | DIMENSIONS OF WAREHOUSES AND OTHER BUILDINGS (Tsubo*) | AREA OF GROUND (Tsubo*) | SITUATION | NO. OF LABOURERS |
|-----------------|-----------------|--------------|-----------------------------|---|-------------------------|------------------|------------------|
| Akashi..... | 30,720 | .... | 4,656 | 8,652 | 28,934 | Hyogo Prefecture | 1,677 |
| Amagasaki..... | 46,000 | .... | 7,133 | 8,113 | 59,305 | Hyogo Prefecture | 2,548 |
| Fukushima..... | 79,788 | .... | 4,555 | 5,444 | 24,706 | Osaka Prefecture | 2,956 |
| Hirano..... | 27,648 | .... | 3,162 | 7,148 | 18,907 | Osaka Prefecture | 1,294 |
| Kizugawa..... | 54,262 | .... | 3,092 | 11,837 | 27,680 | Osaka Prefecture | 2,755 |
| Noda..... | 11,520 | .... | 989 | 3,458 | 6,428 | Osaka Prefecture | 615 |
| Tsumori..... | 67,112 | 1,866 | 10,387 | 8,418 | 51,665 | Osaka Prefecture | 4,094 |
| Koriyama..... | 22,232 | .... | 2,436 | 5,311 | 7,413 | Nara Prefecture | 1,045 |
| Takata..... | 34,404 | 560 | 5,994 | 12,473 | 43,375 | Nara Prefecture | 1,898 |
| Ichinomiya..... | 40,196 | .... | 3,630 | 2,775 | 15,639 | Aichi Prefecture | 1,514 |
| Ogaki..... | 26,880 | .... | 3,846 | 8,811 | 40,946 | Gifu Prefecture | 1,559† |
| Fukagawa..... | 36,704 | .... | 3,511 | 3,957 | 7,674 | Tokyo Prefecture | 1,839 |
| Hashiba..... | 75,704 | 909 | 8,733 | 5,359 | 57,464 | Tokyo Prefecture | 3,370 |
| Total..... | 553,170 | 3,335 | 62,124 | 91,756 | 390,136 | | 27,164 |

* One tsubo equals 36 square feet. † Spinners work through day and night, looms run 12 hours per day.

KANEGAFUCHI SPINNING CO., LIMITED

THE magnitude of the spinning and weaving industry of Japan, and its rapid development, constitute one of the marvels of Japan's industrial growth. There are several large companies, equal in production capacity to any concerns in the world, and the amount of capital invested in the industry can only be figured by scores of millions of yen. An example of the vigour and strength of this trade is found in the famous Kanegafuchi Spinning Co., Ltd., one of the greatest in the world. Its capital is Yen 17,427,650. The annual output runs close to Yen 100,000,000. The company's reserves are Yen 11,585,367; annual profits are approximately Yen 15,000,000, and it operates twenty-two mills, etc. Ring spinning spindles for cotton yarn number 533,084, spindles for spun silk yarn, 62,632, and there are 7,814 power looms. These figures are eloquent enough evidence of the strength of the company, but to appreciate the position occupied to-day by the Kanegafuchi Co., Ltd., it is necessary to understand that this development is the result of barely thirty years' work, that the company started with a nominal capital of only Yen 1,000,000, and for some time worked only one mill.

It was in 1887 that a spinning company was established at Sumida-mura, in the suburbs of Tokyo, the place being traditionally known as "Kanegafuchi." The mill, now known as "Tokyo, No. 1," was equipped with 29,000 ring spindles. This was the cradle of the Kanegafuchi's great enterprise, for from this small beginning the company, from time to time, either through amalgamation, by purchase, or by extension, expanded into the largest concern in the spinning and weaving industry. In 1893 the construction and equipment of No. 2 Mill was completed in the same compound at Tokyo, and two years

later there followed the Hiogo No. 1 Mill at Kobé. During the succeeding 22 years the company obtained control of nine spinning and weaving companies in the Kansai, Kinshu, and Chiugoku districts, either through amalgamation or purchase, while, on the other hand, it extended on its own initiative and established 14 more spinning and weaving mills, both for cotton and spun silk. The company has spared no effort in pioneering the industry in new fields, and to this end the Yodogawa Mill for bleaching, dyeing, and finishing has been started on the right bank of the Yodo River. Since its establishment

| YEAR | COTTON SPINNING SPINDLES | SPUN SILK SPINNING SPINDLES | POWER LOOMS |
|------|--------------------------|-----------------------------|-------------|
| 1906 | 218,080 | ..... | 100 |
| 1907 | 251,792 | 13,560 | 100 |
| 1908 | 294,900 | 19,920 | 700 |
| 1909 | 301,860 | 19,920 | 1,934 |
| 1910 | 374,744 | 51,832 | 3,903 |
| 1911 | 378,316 | 56,032 | 4,153 |
| 1912 | 414,076 | 56,032 | 4,884 |
| 1913 | 417,852 | 56,032 | 5,096 |
| 1914 | 446,308 | 56,032 | 6,766 |
| 1915 | 449,580 | 57,832 | 6,980 |
| 1916 | 533,084 | 62,632 | 7,814 |

| NAME | NATURE OF WORK | LOCATION OF MILL |
|-------------------------|----------------------------------|--|
| Tokyo Head Mill..... | Cotton spinning and weaving | Sumida-mura, Minami-Katsushika-Gun, Tokyo-Fu. |
| Hiogo Branch Mill.... | Cotton spinning and weaving | Higashi-shirike, Hiogo, Kobé City. |
| Judo Branch Mill..... | Spinning only | Judo-mura, Kita-kawachi-gun, Osaka-Fu. |
| Nakajima Branch Mill. | Spinning only | Nishi-Nakajima-mura, Nishinari-gun, Osaka-Fu. |
| Sumoto Branch Mill... | Spinning and weaving | Sumoto-cho, Tsuna-gun, Hiogo-ken. |
| Takasago Branch Mill. | Spinning only | Takasago-cho, Kako-gun, Hiogo-ken. |
| Miike Branch Mill.... | Spinning only | Ohmuta-shi, Miike-gun, Fukuoka-ken. |
| Kurume Branch Mill.. | Spinning only | Sasayama-cho, Kurume-shi, Fukuoka-ken. |
| Kumamoto Branch Mill | Spinning only | Kasuga-cho, Kumamoto-shigai. |
| Nakatsu Branch Mill.. | Spinning and weaving | Toyota-mura, Shimoke-gun, Oita-ken. |
| Hakata Branch Mill... | Spinning and weaving | Sumiyoshi-cho, Tsukushi-gun, Fukuoka-ken. |
| Okayama Branch Mill. | Spinning and weaving | Hanabatake, Okayama-shi. |
| Bizen Branch Mill..... | Spinning only | Shimoishi, Okayama-shi. |
| Saidaiji Branch Mill... | Spinning only | Saidaiji-cho, Jodo-gun, Okayama-ken. |
| Wakayama Branch Mill | Spinning only | Nakanoshima-mura, Kaiso-gun, Wakayama-ken. |
| Osaka Branch Mill.... | Spinning and weaving | Joto-mura, Higashinari-gun, Osaka-Fu. |
| Kyoto Branch Mill.... | Silk spinning and weaving | Tanaka-mura, Otagi-gun, Kyoto-Fu. |
| Kamikyo Branch Mill.. | Silk spinning | Higashi-takeyacho, Kamikyo-ku, Kyoto. |
| Shimokyo Branch Mill. | Silk spinning | Aburanokoji, Shimokyo-ku, Kyoto. |
| Okayama Kenshi Mill.. | Silk spinning | Kadotaomichi, Okayama. |
| Shinmachi Branch Mill. | Silk spinning | Shinmachi, Tano-gun, Gunma-ken. |
| Yodogawa Branch Mill. | Bleaching, dyeing, and finishing | Tomobuchi, Johoku-mura, Higashi-Narigun, Osaka-Fu. |

MOUSSELINE SPINNING & WEAVING COMPANY, LIMITED

This company is the pioneer of the mouseline weaving industry in Japan, and is rightly regarded as one of the leaders in the textile trades of Japan to-day, its plant and factory arrangements being modern in every sense, and its policy one of the broadest and most progressive. As the Mousseline Boshoku Kabushiki Kaisha, the company was first organised in December, 1895, and was incorporated in February of the following year, operations actually beginning in October, 1898. Since that date, of course, the scope of operations of the Mousseline Spinning & Weaving Co., Ltd., has been widely extended. The capital of the company has been increased, its plant and equipment added to and improved, and its lines of manufactures extended to include many products that were not originally anticipated. To-day the company has an annual output valued at about Yen 15,000,000, covering all manufactured goods produced by carding, combing, bleaching, weaving, and spinning machines, many of which were first introduced to Japan by this organisation. Among the products are mouseline, cotton cloth, bunting (for flags), cloth for ladies' "hakama," shalloon (for the use of boxes for gunpowder and other explosives), worsted, and woollen and cotton yarns. The head office and main factory are at Koryuji, Nakatsucho, Nishinari-gun, Osaka, the buildings covering a large area, and being constructed on modern lines. There is also a branch factory at Tsukuda, Chifunemura, Nishinari-gun, Osaka. Some idea of the capacity of the mills may be gathered from the statement that the company operates 60,800 spindles and more than 1,700 looms. There are over 3,000 mill hands, male and female. The Mousseline Spinning & Weaving Co., Ltd., has done a great deal to remove the reproach against the textile companies that they are indifferent to the conditions of labour in their plants. As a matter of fact, this company has gone in for a great deal of welfare work among its employees. The large number of girls are accommodated in the dormitories, and are brought up with family sympathy at the company's expense. As much as possible has been done to provide proper equipment for sanitation, and there are special arrangements for the education of the girls, for giving them the necessary attention that they would have in their homes, for the development of character, and for the encouragement of habits of thrift. To carry out these broad ideas of improving the condition of the workers, the company has provided dormitories, shops for the purchase of what the workers may require, dining room, hair dressing room, laundry, kitchen

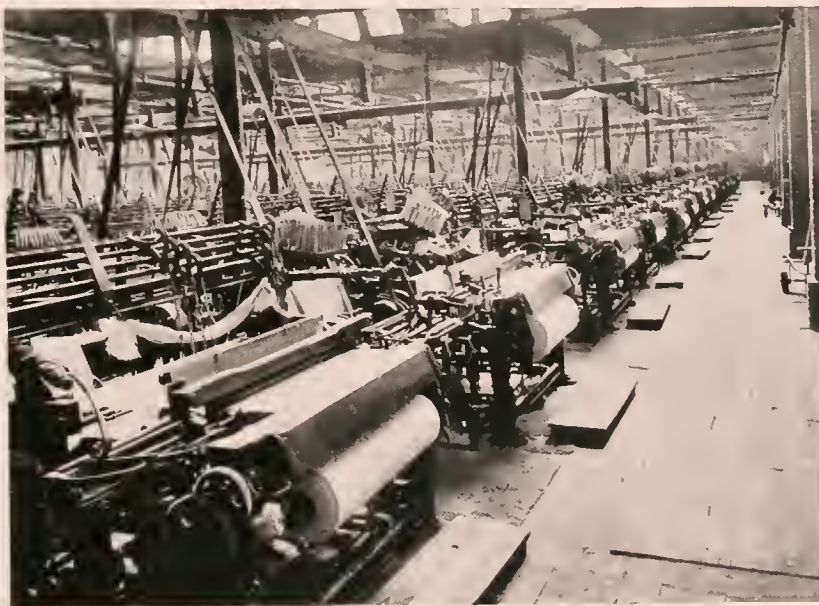
the pursuance of a vigorous policy by the Kanegafuchi Spinning Co., Ltd., has been consistently followed, and through the ebb and flow of business, the enterprise has reached the highest position, not only in the industry which it leads, but in industrialism generally in Japan.

Remembering that the company originally started with one mill and only 29,000 spindles, the table on page 561, covering a period of ten years, will demonstrate at a glance the remarkable growth that has taken place.

The Kanegafuchi Spinning Co., Ltd., produces all kinds of cotton fabrics, yarn, etc., as well as spun silk yarn, and silk piece goods. In the six months preceding June 25, 1917, the total sales were Yen 44,317,044. This means that the company is not only supplying a large portion of the demand of the local market, but it is exporting to a considerable extent, foreign markets having learned to appreciate the quality and the productive capacity of the leading Japanese mills. The head office of the company is at Sumida-mura, near Tokyo, but the business headquarters are at Hiogo, Kobé. Accompanying is a list of the factories, showing their locations and the work which is done in each.

The principals of the Kanegafuchi Spinning Co., Ltd., are: Chairman of the Board of Directors, Mr. Heizacmon Hibiya; Managing Director, Mr. Sanji Muto; Directors, Messrs.

Narazo Takatsuji, Riokichi Nagao, Junichi Nagaye, Hachisou Yamaguchi, Masazumi Fuji, Takeshi Yamaguchi, and Hisakichi Maeyama. The Auditors are Messrs. Bin Hiraga, Kuninosuke Kiyooka, Yoshibumi Murota, Hirota Nozaki, and Zenzaburo Yasuda. The report and balance sheet for the six months ended June 25, 1917, showed a very healthy state of finances. The net profit for the period, including Yen 2,977,885.97 brought forward from the previous term, was Yen 7,781,672.64, compared with Yen 6,222,880.47 for the preceding six months. From this handsome profit Yen 1,000,000 was added to the reserves, Yen 100,000 was placed to the pension fund, Yen 100,000 to the fund for the promotion of welfare of operatives, Yen 150,000 to the invalided work people and to the relatives of those who had died during the term, Yen 150,000 as a bonus to officials. From the remainder, two dividends (ordinary 16 per cent, extra 24 per cent) were paid, absorbing Yen 2,993,326.90, and a splendid balance of Yen 3,288,346.64 was carried forward. Special mention should here be made that the Kanegafuchi Company takes a keen interest in welfare work amongst its operatives, and has spared no expense to fit up hospitals, sanatoria, conveniences at the mills, and modern aids, for the improvement of the conditions under which the many thousands of hands work.



MOUSSELINE SPINNING AND WEAVING COMPANY: MILL AT NISHINARIGUN, OSAKA, SEEN FROM THE CANAL —
INTERIOR VIEW OF FACTORY

where the girls may cook their meals, hospital, school, sewing room, room for instruction in manners and etiquette, play ground, and nursing room. There is also a smoking room. The fresh milk supply for the factory hands is under the company's supervision, a dairy being maintained for that purpose.

The Mousseline Spinning & Weaving Co., Ltd., has received many honours for the excellence of its products, and in recognition of its services to the Empire. During the war of 1904-5 its organisation was largely devoted

to show what was being done for the care and improved treatment of factory hands. This exhibit attracted a great deal of attention locally, and when the manufactured articles were displayed in London at the exhibition, the company received the highest awards.

Apart from the immense business done for domestic needs, the Mousseline Spinning & Weaving Co., Ltd., is engaged in a large export trade, its goods being in strong demand in foreign markets, where their excellent quality is freely admitted. The

concerns of its kind, controlling and leading the important secondary industries of Japan. It is the oldest company in the muslin-weaving business, and has been all along the pioneer in developing the local and foreign trades. The origin of the Jomo Company dates back to 1894 when a small concern was formed under the name of the Woollen Goods Weaving Co., with a capital of only Yen 20,000, the organisation taking place under the auspices of the Tatebayashi people, who were interested in starting such



KITA-KU, OSAKA, NORTHWARD FROM ROOF OF MITSUKOSHI

to meeting the needs of the Imperial Army and Navy, and in recognition of the patriotic work then done, the company received a certificate of merit from the Bureau of Decorations. Various kinds of mousseline and buntings have been sent as exhibits to international expositions, where the highest awards have been gained. More than once these exhibits have been purchased by Their Imperial Majesties, and on several occasions the Emperor and Empress have sent their chamberlains to the mills to inspect the works, and to make purchases for the Imperial Palaces. In July, 1909, the Commissioners of the Anglo-Japanese Exhibition held in London, appointed the Mousseline Spinning & Weaving Co., Ltd., to prepare a typical exhibit of the Japanese textile industries, and also to arrange for the display of a model mill

capital of the company at the time of writing is Yen 7,500,000, of which Yen 6,250,000 is paid up. Reserves amount to Yen 875,000, and a further sign of the financial stability and sound policy of the company's management is the fact that the large sum of Yen 739,000 has been written off for depreciation. The leaders of this important and highly successful enterprise are Mr. Katsutaro Inabata, President and Director; Mr. Suketaro Kawasaki, Director, and Mr. Yokichi Kinbara, Managing Director. In addition, there is a directorate of well known business men, besides a strong and highly competent staff of experts, inspectors, etc.

THE JOMO MUSLIN COMPANY, LIMITED

THE Jomo Muslin Kabushiki Kaisha, or Jomo Muslin Co., Ltd., is one of the largest

an enterprise. For several years the old company carried on, making slow progress and overcoming many initial difficulties. It was reorganised in April, 1902, as a limited liability company under its present title, and some idea of its development since that date may be gathered from the following statement of its capital movement:

| | Yen |
|--------------------------|-----------|
| June, 1902, Capital..... | 20,000 |
| September, 1902..... | 25,000 |
| September, 1905..... | 50,000 |
| December, 1906..... | 1,000,000 |
| January, 1912..... | 2,000,000 |
| August, 1912..... | 4,000,000 |

At the time of its reorganisation the Jomo Muslin Co., Ltd., was manufacturing and



GENERAL VIEW OF KOZUKE FACTORY OF JOMO MUSLIN KABUSHIKI KAISHA

marketing muslin only, but from December, 1906, it began to weave woollen and silk, and cotton mixed goods, besides muslin. Further extensions took place in the range of manufactures, and in August, 1915, the company commenced weaving all kinds of materials, and also began the dyeing of its own output. As the result of strenuous efforts on the part of the President and officers of the company, the career of the Jomo concern has been conspicuously successful. New buildings and great improvements in the plant and equipment of the mills have taken place year by year, following on the increases in the capital outlined above, and to-day the works are entirely modern and complete in every detail. The quality of the goods turned out has been maintained at the highest standard, and it is generally recognised that the muslin under the well-known brand of $\diamond 3,100$ is superior to most on the market, even including the best imported brands. This result is due to the use of the most approved machinery known in the trade. The works of the Jomo Muslin Co., Ltd., are situated at Tatebayashimachi, Yurakugun, Gumma Ken, and there is a business office at Sumiyoshicho, Nihonbashi-ku, Tokyo. The total area of

land occupied by the company is 30,000 *tsubo*. The buildings cover 5,500 *tsubo* and are of the most modern construction of brick and stone (brick and wood in the case of the offices), the factories and godowns being one- or two-storied as conditions require. The plant comprises several hundred machines, and power is supplied from electric dynamos and a Cornish boiler. Employment is found in the mills for 250 men and 1,250 girls, the annual wages bill running over Yen 200,000. An idea of the magnitude of the operations of the Jomo Muslin Co., Ltd., may be gathered from the statement that its mills turn out 10,000,000 yards of muslin per annum, worth Yen 8,000,000, and approximately 1,500,000 pounds weight of woollen and other fabrics, valued at Yen 6,000,000. Woollen tops and other raw material are imported from Australia and the machinery comes from Europe or America. The principal buyers of the Jomo products are the piece goods manufacturers of Tokyo and Osaka, and a large export trade is done with Europe, India, and the South Sea Islands. The principal lines of exports are muslin under the two brands $\diamond 3,100$ and $\diamond 210$ Nos. 40 to 80. Mr. Hisao Matsuo, Managing Director of

the Jomo Muslin Co., Ltd., is a graduate of Keio University. After some time spent as a journalist with the "Jiji Shimpō" Sha, he accepted a managerial position with Messrs. Murai Brothers, and subsequently became Managing Director of the Osaka Muslin Boseki Kabushiki Kaisha, in which position he was recognised as an able and excellent executive. In January, 1915, he joined the Jomo Muslin Co., Ltd., as Managing Director. Mr. Matsuo encountered a serious difficulty soon after his connection with the company. As a result of the European War the importation of English tops was prohibited, and raw material could scarcely be obtained because of its exorbitant price. All the muslin companies were seriously affected by this sudden check on importation, but the Jomo Company, which had been using English tops exclusively, was handicapped to such an extent that its mills had to stop working for a while. At this time of difficulty, Mr. Matsuo perceived the immense possibilities underlying the industry, on account of shortages of material in Europe and the markets which had hitherto been dependent upon the continental mills, and with unusual energy he developed new sources of raw supplies, and pushed on with the work

in the face of many difficulties. It is admitted that Mr. Matsuo's strong handling of a serious situation at that time saved the Jomo Company from disaster and restored



A FARMER'S HOME AND FAMILY

it to the prosperous condition in which it is to-day. Supporting Mr. Matsuo are the following Directors: Messrs. Tetsujiro Matsumoto, Kiichiro Chikira, Shobei Nakatani, Riichiro Kagami, and Kiichiro Wakatabi. Mr. Eihachiro Arai is the General Manager of the Jomo Muslin Co., Ltd.

THE IMPERIAL FLAX MANUFACTURING CO., LIMITED

THE Teikoku Seima Kabushiki Kaisha, or Imperial Flax Manufacturing Co., Ltd., is an amalgamation of four of the most important flax manufacturing companies in the Empire, and the origin of the business really dates back to 1885, when the Oni Flax Co. was formed. This company, together with the Shimotsuke Flax Manufacturing Co., and the Osaka Flax Manufacturing Co., joined forces in July, 1903, under the name of the Nippon Flax Manufacturing Co. In July, 1907, the Hokkaido Flax Manufacturing Co. was amalgamated and the new organisation became the Imperial Flax Manufacturing Co., Ltd. Some idea of the strength of this enterprise may be gathered from the fact that its capital to-day is Yen 12,800,000, of which Yen 800,000 is paid up, and (June, 1917) there are reserves totalling Yen 1,400,000. Factories are operated at Osaka, Otsu, Kanuma, Nikko, and Sapporo and there are twenty-two flax mills in Hokkaido. All the factories are of modern construction,

built of stone or brick and equipped with the latest machinery for the handling of all classes of products such as flax canvas, linen duck, hose, linen cloth, linen shirting, table cloths, napkins, sheets, towels, elastic canvas, linen yarn, seaming twine, linen thread for lace, fishing net, netting twine, sewing thread, and all similar lines of hemp and flax products and manufactures. The annual capacity is 12,000,000 yards of linen fabrics and 17,000,000 pounds of yarns and twines. Arrangements are now being made for the increase in the plant and manufacturing capacity to take care of the rapidly expanding business of the company.

In addition to its factories the Imperial Flax Manufacturing Co., Ltd., maintains an experimental farm for the production of linseed. The motive power of the different plants is either steam or electricity, and a total force of 3,200 horse-power is generated. The different weaving and spinning machines have mainly been imported from England and France. Over 5,000 hands are employed by the company. The output of their mills



PREMISES OF THE IMPERIAL FLAX MANUFACTURING CO., LTD., TOKYO



BIRD'S-EYE VIEW OF HIGASHI-KU AND NISHI-KU WARDS, OSAKA

is in great demand in Japan and abroad. Much of the company's production is taken by the Imperial Household Department, the Army and Navy, the Railway Department, and various other Government offices and the local trade generally. A steady demand for the output is recorded, and it is now on the increase. The export trade has naturally increased during the war, and the Imperial Flax Manufacturing Co., Ltd., is now exporting regularly to Great Britain, the United States, Russia, France, Australia, India, China, the South Sea Islands, etc., etc.

The principal officers of the company are: President, Mr. Zenzaburo Yasuda; Managing Directors, Messrs. Takeshi Doki and Ryozauro Saiga; Directors, Baron Kiha-chiro Okura, Messrs. Gentaro Tanaka and Shintaro Ohashi; Auditors, Messrs. Shiehichi Ozawa and Zennosuke Yasuda. Mr. Renzo Ejiri is private secretary and Messrs. Jiro Sakamoto and Suguma Suzuki are Chief Experts. The head office of the Imperial Flax Manufacturing Co., Ltd., is at Uragashi, Nihonbashi-ku, Tokyo. This company is also sole agent for the Taiwan Seima Kabushiki Kaisha of Coroton, Formosa, manufacturers of jute canvas, gunny bags, Hessian cloth, etc.



SCENE IN UYENO PARK, TOKYO



THE FINE OSAKA PREMISES OF THE JAPAN COTTON TRADING CO., LTD.

NIPPON MENKWA KABUSHIKI KAISHA
(THE JAPAN COTTON TRADING
CO., LTD.)

BEFORE the cotton spinning industry of Japan had been long in existence it was realised by a number of Osaka business men that there was ample scope for the operations of a company that would handle raw materials and keep the mills well supplied from distant markets, as well as export the products of

extent of the operations of the company is obtainable from the statement that the yearly trade in all lines exceeds Yen 200,000,000 in value. The present capital stands at Yen 5,000,000, subscribed, of which Yen 3,500,000 has been paid up. The reserve funds total Yen 2,750,000. For the half-year ended March 31, 1917, the profit was Yen 1,075,755, to which was added the sum of Yen 196,985 brought forward from the

usually adhering to primitive processes. Recently, however, the Government has established a brewing laboratory on scientific principles, to promote the introduction of modern methods. *Saké*, the national liquor, is brewed from rice, the greatest centre of manufacture being the region between Kobé and Osaka. The quality and flavour of saké is attributed by the Japanese to the quality of the water used in its preparation, and the districts named are regarded as having the best water for the purpose. The peculiar merit of this water is said to come from its possession of a species of bacilli imparting an agreeable flavour to the finished saké. A great difficulty of the saké industry is the inability to keep the liquor unimpaired for more than a few months, and of not being able to brew it successfully at all seasons. To remedy the former defect salicylic acid is used, while the Government laboratory already mentioned is introducing methods that are successful at all seasons, as well as hastening the slow process which was a great drawback to the old ways. The annual production of saké is nearly 180,000,000 gallons, worth about Yen 220,000,000, on which a tax of some Yen 90,000,000 is imposed annually. The export of saké is about 240,000 gallons, valued at Yen 4,000,000, going chiefly to Japanese settlements abroad.

The chief centre of soy brewing is Chiba, near Tokyo. The most important ingredients used are parched wheat and salted beans, and the liquid requires about twelve months to mature. The new Government laboratory is trying to introduce more scientific and expeditious methods, encouraged by the growing demand for Japanese soy abroad. The output is about 100,000,000 gallons a year, which pays a tax of some Yen 5,000,000, and the value of the export is about Yen 4,000,000 a year.

Beer brewing started in Japan in 1871 under German experts, and has made rather phenomenal progress in recent years, being now under native supervision only. The barley is grown in Hokkaido from imported seed. The five large breweries in operation produce about 10,000,000 gallons, of which there is an increasing consumption at home and an increasing export abroad, especially to Oriental countries. Beer halls and bars are now common in Japanese towns, and the people have quite taken to the beer habit.

THE KIRIN BREWERY CO., LIMITED

FOR nearly a generation, beer has been produced in Japan, and the name of "Kirin" has been prominent in connection with this agreeable, beneficial, highly popular beverage. The history of this famous brewery is inseparably connected with that of the growth and



WAKINOAMA, KOBÉ

the mills to foreign markets. To this end, the late Mr. Tsuneki Sano of Osaka organised a meeting of promoters to the number of twenty-four, and on November 10, 1892, the Nippon Menkwa Kabushiki Kaisha came into existence, with a capital of Yen 200,000. With the phenomenal development of the Japanese spinning industry during the last decade, the business of the Japan Cotton Trading Company has grown year by year, and the capital has had to be increased several times.

Besides raw cotton and cotton yarn, the company does an extensive business in piece goods and has recently added the trade in wool and silk. The company has branches and agencies at Shanghai, Hankow, Dairen, Tientsin, Tsingtau, Hongkong, Bombay, Calcutta, New York, Fort Worth, Moppo, Tokyo, and Kobé, and operates a cotton-pressing factory at Hankow. The company has also good connections at Rangoon, Alexandria, Liverpool, Buenos Aires, Sydney, and other trading centres. Some idea of the

previous term. Of the gross sum Yen 500,000 was then added to the reserves, and after paying directors' fees, and an ordinary dividend of 18 per cent and a special dividend of 12 per cent, Yen 285,240 was carried forward.

The directorate of this important trading concern comprises Messrs. M. Kita (President), A. Yamada (Managing Director), K. Suyeyoshi, Y. Baba, and H. Ohka.

BREWING INDUSTRY

THIS industry is chiefly occupied with the production of *saké*, beer, and *soy*, as wine-making is still in its infancy, and the distilling of such spirits as whiskey is hardly yet begun. It is probable, however, that in the near future Japan will have her own distilleries and come into close competition with imported whiskey, especially among those whose taste in beverages is not cultivated. *Saké* and *soy*, or *shoyu*, have been made in Japan for centuries and have naturally reached a state of development bordering on perfection, though



FACTORY GIRLS ENJOYING A CHERRY BLOSSOM PARTY

development of one of Japan's greatest industrial interests. The company was originally registered in Hongkong in 1885 under the style of the Japan Brewery Company. Its capital amounted to some Yen 50,000, and its output was limited to 75,000 gallons per annum, which is even less than the output of one month at the present time. Before that, two or three breweries had been started on a small scale. Their products, though called beer, were scarcely recognised as such, and were driven out by imported beer. In 1888 the total import amounted in value to some Yen 460,000, but once the excellent quality of Kirin Beer became known among customers (and the discriminating public were not slow to recognise its sterling value), the importation practically ceased, and the road was paved for the forthcoming of the Yebisu Brewery in Tokyo and the Asahi Brewery in Osaka. It is to the prestige it has won that the company now owes the privilege of having Kirin Beer consumed in the Imperial Household and among the upper classes of the Japanese in general.

In 1899 the company was registered in Japan under the name of Japan Brewery Co.,

Ltd., and its capital increased to some Yen 600,000, which amount was doubled later on, in 1906. In January, 1907, a technical change was made in the style of the company, which became the present Kirin Brewery Company, Ltd., its capital amounting to Yen 2,500,000. In 1917 the capital was increased to Yen 5,000,000, which is a hundred times the original amount, while the works, when the new brewery near Osaka is finished, will be capable of producing, from the first year, over 8,000,000 gallons, which is also over a hundred times the original output.

These striking figures bear eloquent testimony to the energy and ability of the Directors and shareholders. It would be unwise to set bounds to the future ramifications of the brewery's activity, or to the consumption of the celebrated Kirin Beer. The local and domestic trade of early days has begun to conquer foreign markets. During the past few years, the exportation of Kirin Beer has developed enormously, not only in the dominions and colonies—Formosa, Korea, and Manchuria—but also in China, Hongkong, the Straits Settlements, Siam, Annam, British and Dutch Indies, the Philip-

pines, and even British East Africa. Kirin Beer has a reputation and an increasing sale, which indicate the universal esteem in which the brand is held. And when the facts are examined, this confidence in the genuineness and high quality of Kirin Beer is found to be well based. Indeed, the Kirin Beer is now, and was from the first, prepared from the best of materials and by a method and apparatus highly scientific. What the future will be is a closed book, but it looks as if the company which produces the best beer will hold the winning hand.

It is well worth mentioning here that the ability and undivided attention of the company's sole agents, Kabushiki Kaisha Meidi-Ya, have had a great deal to do with its prosperous development, and with the establishment of the beer in the favour and confidence of the public.

The present Board of Directors of the Kirin Brewery Co., Ltd., is as follows: Mr. Genjiro Yonei (Managing Director); Baron Rempei Kondo, Mr. Furuu Wuriu, Mr. Tsunenori Tanaka, and Mr. Seizo Ida (Directors); Mr. Kotaro Mizutani and Mr. Ryoza Hiranuma (Auditors).

KABUSHIKI KAISHA MEIDI-YA (THE MEIDI-YA CO., LTD.)

FOR over a quarter of a century, a position of high repute and foremost importance in the wine and provision trade in Japan has consistently been held by the Meidi-Ya Co., Ltd. The company's extensive business, which is now conducted through ten offices spread throughout the Empire, was originally founded at Yokohama in 1885 by the late Mr. H. Isono. Having been graduated from the Tokyo Imperial University, he went over to England and entered a firm to learn business practically. After a few years, he returned to Japan full of ambitious ideas, and in 1885, he opened a store at Yokohama to deal in provisions and liquors, while acting as purveyor to the Nippon Yusen Kaisha. In 1887, Meidi-Ya took up the sole agency for the sale of Kirin Beer, which has since won a great name throughout the Far East and is esteemed by the discriminating public as comparing favourably with famous European beers.

Mr. Isono steadily developed his business, but he died an early death in 1897, at the age of thirty-nine years. Thereupon, Mr. G. Yonei, a relative of the deceased who had assisted Mr. Isono for a long time, continued the business of the Meidi-Ya in his capacity as the guardian of the daughter of the deceased. In 1903, Mr. Yonei, in concert with Mr. C. Isono, the adopted son of the late Mr. Isono, reorganised the firm as a partnership company under the name of Gomei Kaisha Meidi-Ya. In May, 1911, the firm became incorporated as a limited company under the name of Kabushiki Kaisha Meidi-Ya (The Meidi-Ya Co., Ltd.), taking in the chief employees as shareholders, the present directorate being constituted as follows: President, Mr. G. Yonei; Vice-President, Mr. C. Isono; Director and Manager, Mr. M. Miyaji; Directors, Mr. K. Sano and Mr. S. Mikami. The company now has its general office in Tokyo, head office in Yokohama, and branches in Tokyo, Osaka, Kyoto, Kobé, Moji, Nagoya, Kanazawa, Fukuoka, and Seoul. It deals in

Kirin Beer as well as in wines, liquors, provisions, tablewares, tobacco, and toilet articles, all imported from famous manufacturing factories in Europe and America, for the most of which the company acts as sole agent. As to the reputation of the company, nothing could bear more eloquent testimony than the fact that it has the honour to hold the special warrant of Appointment to the Imperial Household. It is also supplier to the Imperial Navy, and contractor to prominent shipping companies, such as Nippon Yusen Kaisha, Toyo Kisen Kaisha, and Osaka Shosen Kaisha. The Meidi-Ya Co., Ltd., is sole agent for Japan for the following firms:

The Kirin Brewery Co., Ltd., Yokohama (Kirin Beer).

Nunobiki Mineral Water Co., Ltd., Kobé (Mineral Water).

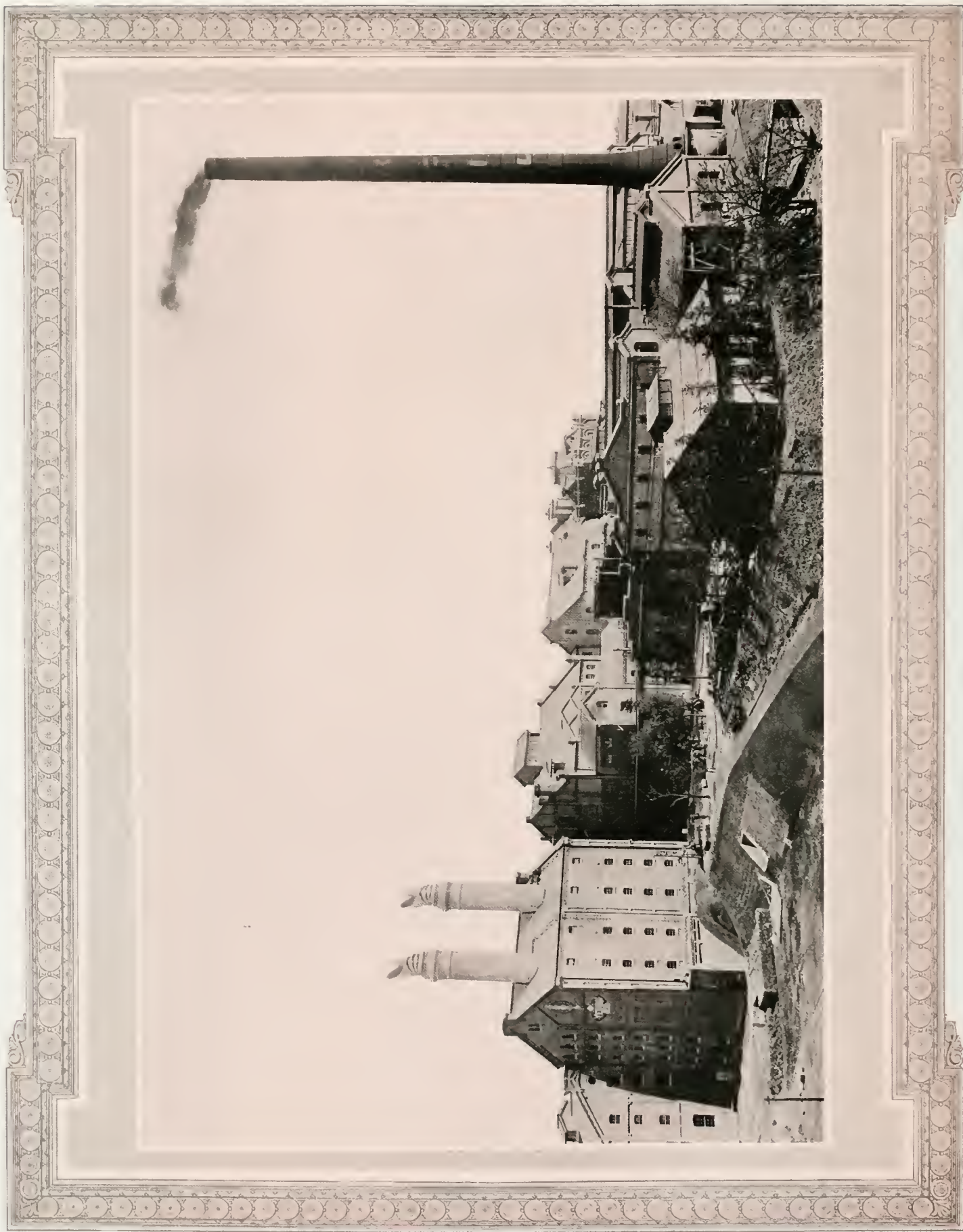
Suehiro Pasturage, Shimoosa (Hams and Bacon).

Koiwai Pasturage, Morioka (Butter).

James Buchanan & Co., Ltd., and John Brown & Co. (Whiskey).



MINATOGAWA (THE THEATRE STREET), KOBÉ



THE PLANT OF THE DAI NIPPON BREWERY CO., LTD., ONE OF THE LARGEST BREWERIES IN THE WORLD, AT MEJURO, NEAR TOKYO

Moët & Chandon, Epernay, France (Champagne).

J. J. Mortier, Bordeaux (French Wines).

Otard Dupuy, Cognac (Brandy).

Flli Gancia & Cie, Canelli, Italy (Vermuth).

B. Arnhold & Co., San Francisco (American Wines).

G. H. Hammond Co., Chicago (Canned Meats).

E. & J. Burke, Ltd., Dublin (Stout).

THE DAI NIPPON BREWERY COMPANY, LIMITED

AMONG the many distinctions which Japan can claim in connection with its remarkable industrial progress, is that of possessing the fourth largest brewing concern in the world. The largest are Guinness & Co., of Dublin, Ireland, and Anheuser-Busch of St. Louis, U. S. A., and the fourth in point of size and output is the Dai Nippon Brewery Co., Ltd., of Japan. The distinction is all the more remarkable when it is remembered that the brewing of beer is an industry that was scarcely known in Japan a quarter of a century ago, and that beer was introduced to the Japanese only after the advent of the foreigners. From about 1874 the quantity of imported beer increased, as the taste for the drink was acquired by the Japanese. The importation of foreign beers, mostly brought from Germany, Great Britain, and the United States, amounted in value to about Yen 400,000 per annum for many years, but since 1897 the quantity imported has rapidly decreased, owing to the operations of Japanese breweries, which have turned out a high grade product which has perfectly satisfied the domestic taste. That this taste is a good one is evidenced by the fact that foreigners, as a general rule, are well satisfied with the better-class Japanese beers, and, furthermore, a large export trade is being done. Whereas Japan used to import large quantities of beer, the Dai Nippon Brewery Co., Ltd., alone is now exporting over Yen 4,000,000 worth of beer per annum to such countries as China, India, Persia, Egypt, Australia, the South Seas, and even to East Africa.

The Dai Nippon Brewery Co., Ltd., is not only the largest brewing concern in the Far East, and also the fourth largest in the world, but it is one of the greatest of Japanese industrial combines. It really embraces several companies in one organisation. Originally the business was that of the Nippon Brewery Company. In January, 1906, steps were taken to amalgamate several breweries, and as a result the Nippon, the Sapporo Brewing Company, and the Osaka Brewing Company agreed to combine. The combination was effected on March 26



MEMORIAL TOWER ERECTED FOR AN INDUSTRIAL EXHIBITION AT UYENO PARK, TOKYO

of the same year, when a promoters' meeting was held and the Dai Nippon Brewery Company, Limited, was formed, with a capital of Yen 5,600,000. With the expansion of the local demand it was soon found impossible to turn out a sufficient supply unless the company's plants were enlarged, and accordingly, in January, 1908, the capital of the combine was increased to Yen 12,000,000, and the whole of the property and business of the Tokyo Brewery Company was bought up. That company's brewery then became known as the Hodogaya Works of the Dai Nippon Brewery Company, Limited, and the plant was exclusively devoted to the manufacture of cordials and other non-alcoholic beverages. Since then the history of the Dai Nippon has been one of constant increase in output and expansion of capacity by the increase of plant and the establishment of new breweries. Plants are now in operation at Tokyo, Osaka, Yokohama, Nagoya, Hakata, Sapporo, Seoul, and Shanghai, and the capacity of the combine is over 270,000 *koku*, or 16,125,000 gallons, per annum. The great popularity of the Dai Nippon products is undoubtedly due, first, to the high quality, and, second, to the variety of ales turned out. The company produces the following well known brands: "Ebisu," "Sapporo," "Asahi," "Sapporo Black," "Peace," "Tokyo," and "Muncheener." In addition, it makes a diversified line of non-alcoholic drinks such as "Ribbon Citron," "Ribbon Raspberry," "Ribbon Tansan," "Napolin," and malt coffee. The beer is marketed in bottles and in draught to the hotels and cafés.

The Sapporo Brewery, controlled by the Dai Nippon Company, is one of the oldest in Japan, and has more than once been singled out for distinction by the Imperial Family. When the late Emperor Meiji visited Hokkaido he paid a visit to the Sapporo Brewery on August 31, 1881, and the present Emperor, then Heir Apparent, also honoured the brewery with a visit in August, 1911, when travelling through Hokkaido.

Some idea of the financial transactions of the Dai Nippon Brewery Co., Ltd., may be gathered from the fact that in the ten years from its inception, to March 26, 1916, dividends totalling Yen 11,822,447 were paid, and in the same period the Government taxes totalled Yen 14,356,574. This is an average annual dividend and tax payment of Yen 1,182,244 and Yen 1,435,657 respectively. The rate of dividend has been maintained at from 12 to 15 per cent per annum. The Dai Nippon Brewery Company, Limited, unlike some enterprises, has never been subsidised by the Government. On the other hand, it has contributed to the Imperial Treasury Yen 2,530,000 more than it has paid to its shareholders, and when the value of such an industry to the country directly, and indirectly through the wages it pays and the money expended in the maintenance of its trade, is considered, it will be recognised what a nationally important enterprise it is. In the first ten years of their existence the Dai Nippon breweries turned out more than 365,000,000 bottles of beer. The head office of the company is at Meguro, Tokyo. The President of the Dai Nippon is Mr. K. Makoshi.

THE IMPERIAL BREWERY CO., LIMITED (THE TEIKOKU BREWERY KABUSHIKI KAISHA)

THE traveller in Japan, or, for that matter, in the Far East, to-day seldom fails to remark upon the excellence of the beer supplied by all the leading hotels, and to express surprise on learning that it is manufactured in Japan. It is, however, a fact that the Japanese have achieved wonders in this direction, as will be noted by reference to the output and exportation figures of the principal Japanese breweries. The organisation of the Teikoku Brewery took place in 1910, the majority of the capital of Yen 2,000,000, 25 per cent paid up, being subscribed by the firm of Suzuki & Co. (described in connection with a dozen different enterprises in this compilation), but the company did not actually come into existence until June, 1912. The construction of the brewery was started in the same month and completed in April, 1913. The product, which is labelled "Sakura Beer,"



TEIKOKU BREWERY CO., LTD.: CASKS IN WHICH THE FERMENTING PROCESS TAKES PLACE—HUGE STORAGE VATS—
THE OFFICES AND MAIN BREWERY—BOILING PANS—THE BOTTLING DEPARTMENT



HIGASHI-KU AND KITA-KU WARDS, OSAKA

was first put on the market in July, 1913, and very soon created a large demand, so great, indeed, that it was found necessary to increase the capacity of the brewery from 59,550 gallons to 202,470 gallons, a further 25 per cent of the capital being called up for this purpose.

The outbreak of hostilities in Europe had a depressing effect on the company's business, but during 1915 the demand became greater than ever. A considerable part of the Indian trade formerly supplied by Great Britain and Germany, principally the latter, came into the company's hands, necessitating a yet further extension of the plant, adding 59,550 gallons to the annual output, and also increasing the storage capacity very considerably. Permission was obtained from the Government to open a private bonded warehouse in April, 1916, to afford additional facilities for the importation of the raw materials and the export of the product. Domestic sales continued to increase as well as the overseas demand, so that the plant was again extended in 1916, and the capacity to-day stands at 2,954,400 gallons annually. The malt works were

enlarged in 1917, and now produce 1,958,000 gallons of malt.

The brewery, located at Dairi, near Moji, occupies an area of 2,300 *tsubo*, and is operated by combined electrical and steam power, representing a total of 725 H. P. Nearly 300 workmen are employed.

A number of gold and silver medals have been awarded to the company at both Japanese and foreign exhibitions, but more important is the patronage and encouragement received from H. I. M. the Emperor, who sent his special envoy in the person of Viscount Kaiyeda to personally inspect the brewery in November, 1916. The company took advantage of the opportunity to present the Imperial Household with a number of photographs in a beautifully prepared album, some of which views, eloquent of the excellence and modernity of the plant, we have pleasure in reproducing.

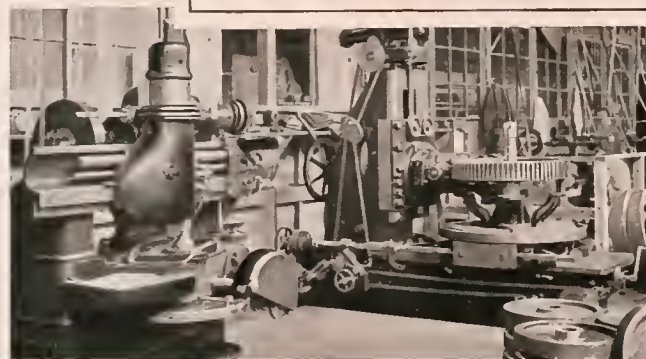
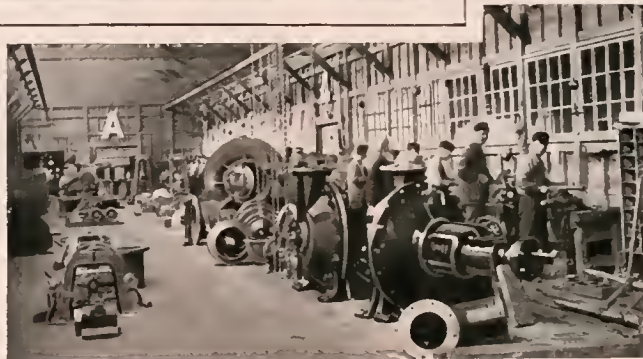
The officers of the company are Messrs. Masajiro Miyamoto, Torataro Hiraoka, Fukutaro Sekiya, Kozaburo Kishi, Ushimatsu Sakai (Directors), and (Auditors) Jiro Fukunaga, Yoshio Kawai, Kawaichi Ishida, Sozaburo Hirano, whilst Mr. Igahiko Sumida

very ably directs the affairs of the company in the combined capacity of President and Manager.

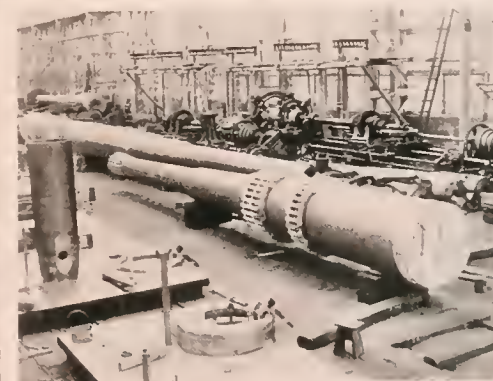
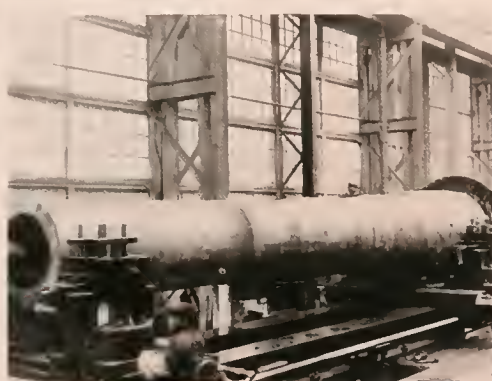
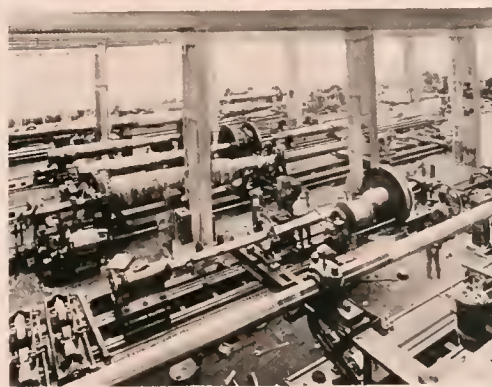
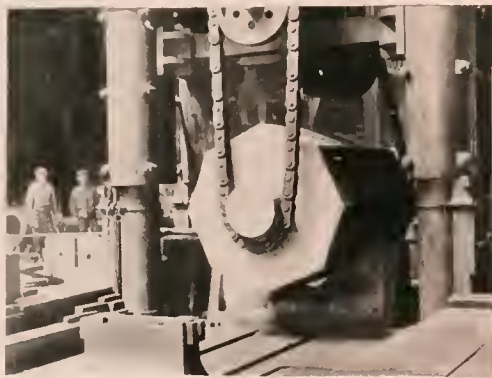
Besides exporting to India, the company exports to China, the Straits Settlements, and the South Sea islands.

MACHINE MAKING

JAPAN'S great engineering works are dealt with under a separate heading. Here it will be sufficient to indicate the progress made in machine-making, which has been fair, though still slow owing to lack of skilled mechanics. Most of the heavier machinery has still to be imported, such as locomotives, turbines, engines, electric generators, and heavy railway materials, as well as weaving, spinning, and printing machines, though attempts are being made at producing some of these. Japanese machine shops are confined chiefly to turning out boilers, railway carriages, lathes, cranes, electric and telephone apparatus. As heavier machines can nearly all be purchased abroad cheaper than they can be made in Japan, this side of the industry suffers a handicap which is not



NIPPON HEIKI SEIZO KABUSHIKI KAISHA (JAPAN ARMS AND MACHINERY MANUFACTURING CO., LTD.); GENERAL VIEW OF THE WORKS AT OSAKA — PUMP-MAKING SHOP — MAKING AUXILIARY PARTS FOR NAVAL USE — TURNING OUT SHELL FUSES



SEIKO SHOKAI, REPRESENTING THE JAPAN STEEL WORKS, LTD. (KABUSHIKI KAISHA NIHON SEIKOSHO): 75-TON INGOT ON PRESS—
4,000-TON HYDRAULIC PRESS—THE GUN SHOP—14-INCH GUN JACKET—12-INCH GUN

easy to surmount. Many of the factories still import the smaller parts of the cars they make, such as wheels, axles, sole-bars, springs, etc. The Japanese are making their most conspicuous progress in the production of electrical machinery, fixings, and apparatus. Sewing machines have still to be wholly imported. The war lent tremendous impetus to the increase of machine shops in Japan and to better technical education along this line. The making of gas and oil engines, machines used in the fibre industry, and various kinds of tools and implements is making gradual progress. The total output of tools and machinery is now about 20,000,000 yen in value annually. Imports of machinery are still annually over 40,000,000 yen as against only 3,000,000 yen in exports. Most of the imports in spinning and weaving machines, motors, electric machines, tools

and implements come from England, Germany, and the United States, England furnishing about one-half of the total. The more important companies turning out machinery are shown in the table below.

THE JAPAN ARMS AND MACHINERY MANUFACTURING COMPANY, LIMITED

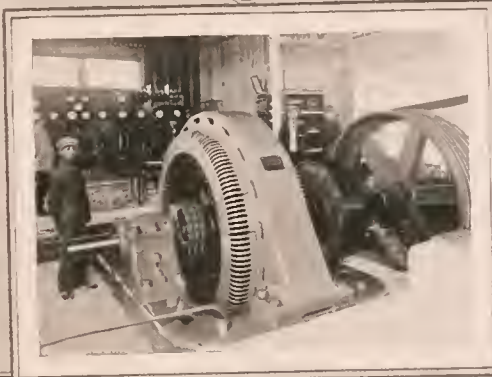
UP to the outbreak of the European war the manufacture of arms and munitions in Japan was confined entirely to the Govern-

ment arsenals, but here again Japan has profited by the lessons taught by the great conflict, and the development of such a huge plant as that of the Japan Arms and Machinery Manufacturing Co., Ltd., is one of the consequences. This concern, known in Japanese as the Nippon Heiki Seizo Kabushiki Kaisha, is indeed one of the interesting developments in the industrial activity of Japan. It was originally founded as a small joint partnership company at a time when

| COMPANY | CAPITAL | RECEIPTS | EXPENSES | DIVIDEND |
|-----------------------------|-----------|-----------|-----------|----------|
| | Yen | Yen | Yen | Per Cent |
| Shibaura Engine Works..... | 2,750,000 | 5,347,000 | 5,082,000 | 9 |
| Niigata Iron Works..... | 1,200,000 | 1,986,000 | 1,702,000 | 10 |
| Tokyo Electric Company..... | 2,600,000 | 5,554,000 | 4,765,000 | 20 |
| Toyoda Machine Works..... | 300,000 | 313,000 | 208,000 | 6.5 |



(Upper Row, Left to Right) Mr. T. WATANABE, Managing Director, Great Japan Petroleum Mining Co., Ltd.—Mr. K. KONISHI, President, Japan Arms and Machinery Mfg. Co.—Mr. Y. KAWAKITA, President, Kawakita Electrical Co., Ltd. (Middle Row) Mr. TERUGORO FUJII, Director, Fuji Steel Co., Ltd.—Mr. S. HOSHINO, President, Fuji Steel Co., Ltd.—Mr. SHIGETA FUJII, Vice-President and Director, Fuji Steel Co., Ltd.—Mr. N. TAJIMA, Member Board of Directors, Great Japan Mining Co., Ltd. (Lower Row) Admiral Baron Y. ITO, President, Great Japan Petroleum Mining Co., Ltd.—Mr. T. SAKANO, Managing Director, Osaka Electric Light Co., Ltd.—Mr. K. TSUDA, President, Osaka Steel Mfg. Co., Ltd.—Mr. A. NAKAGAWA, Managing Director, Ujigawa Electric Co., Ltd.



OSAKA STEEL MANUFACTURING CO., LTD.: THE STEEL PLANT — 400 H. P. MOTOR FOR SMALL BAR MILL — THE SMALL BAR MILL —
THE LATHE SHOP — 15-TON OPEN HEARTH FURNACE

the Government and people of Japan began to realise that they must have private munition-making plants similar to those in operation in the foremost countries of Europe, and in the United States. For a time the company operated a small plant, but in 1915, when an order came from Russia for 4,000,000 fuses for 3-inch shrapnel shells, a big opportunity was presented, which the directors of the company eagerly seized. The Government arsenals were not in a position to carry out the order, and it was about to lapse, owing to there being no private concerns of sufficient experience or strength of plant to carry it through, when the Japan Arms Company undertook to fulfil the order. With such a contract before them the directors found it necessary to have additional capital and to reorganise their works. Consequently, the joint partnership concern was turned into a limited liability company with a sufficiency of capital, and the Nippon Heiki Seizo Kabushiki Kaisha was started. Incidentally it may be said that of the big Russian order placed with the company over 2,450,000 fuses were made and delivery given before the end of July, 1917.

At the same time that this large order was accepted the company was successful in securing Government orders for machine parts, pumps, etc., for the Imperial Army and Navy, work that could conveniently be carried on with the part of the plant not required for work on the Russian order. These and other contracts have kept the company's works fully occupied and have enabled the concern to pay a dividend of 50 per cent every half-year. However, it is recognised that such a large profit is only a momentary phenomenon, and it can not be expected in ordinary times. The directors have therefore made all arrangements to alter the plant, as occasion may arise, to enable the company to manufacture articles for which there is always a demand in peace time, though the works will be maintained primarily for the manufacture of rifles, machine guns, and other munitionment. It may take some time to readjust the plant to peace conditions, but the work is under way and the company has already carried out the manufacture of machine parts, pumps, and other requisites. It is hoped also to make machinery for silk and cotton spinning, small machines, and parts for ships, water and other metres, and sundry other articles. In this connection the future of the company should be very bright, because the industrial development in Japan is so pronounced, and the demand for machinery can not be met from the countries to which the industrial concerns looked before the war. The Japan Arms and Machinery Manufacturing Company, Limited, fully



FUJIYAMA, FROM SHIRAITO WATERFALL

recognises that if the local requirements are properly filled at the right prices, there will be no dearth of orders. Having been established scarcely two years, the plant has not yet been developed as fully as the directors hope for, but this will be reached in the course of another year. The capital of the company to-day is Yen 5,000,000, but under the scheme of future development it is planned to increase this largely, and in other ways make the undertaking the greatest enterprise of its kind in the Far East. The works of the Japan Arms and Machinery Manufacturing Company, Limited, are at Minamihama, Toyozakicho, in the suburbs of Osaka City. At present over 1,000 men are employed in the factory, which is an entirely new building of most modern design. The plant and machinery is automatic and designed to permit the greatest output at a minimum cost. When the works are enlarged as forecasted, it is expected that from 2,500 to 3,000 men will be engaged. The President of the company is Mr. Kiyomatsu Konishi.

THE SEIKO SHOKAI

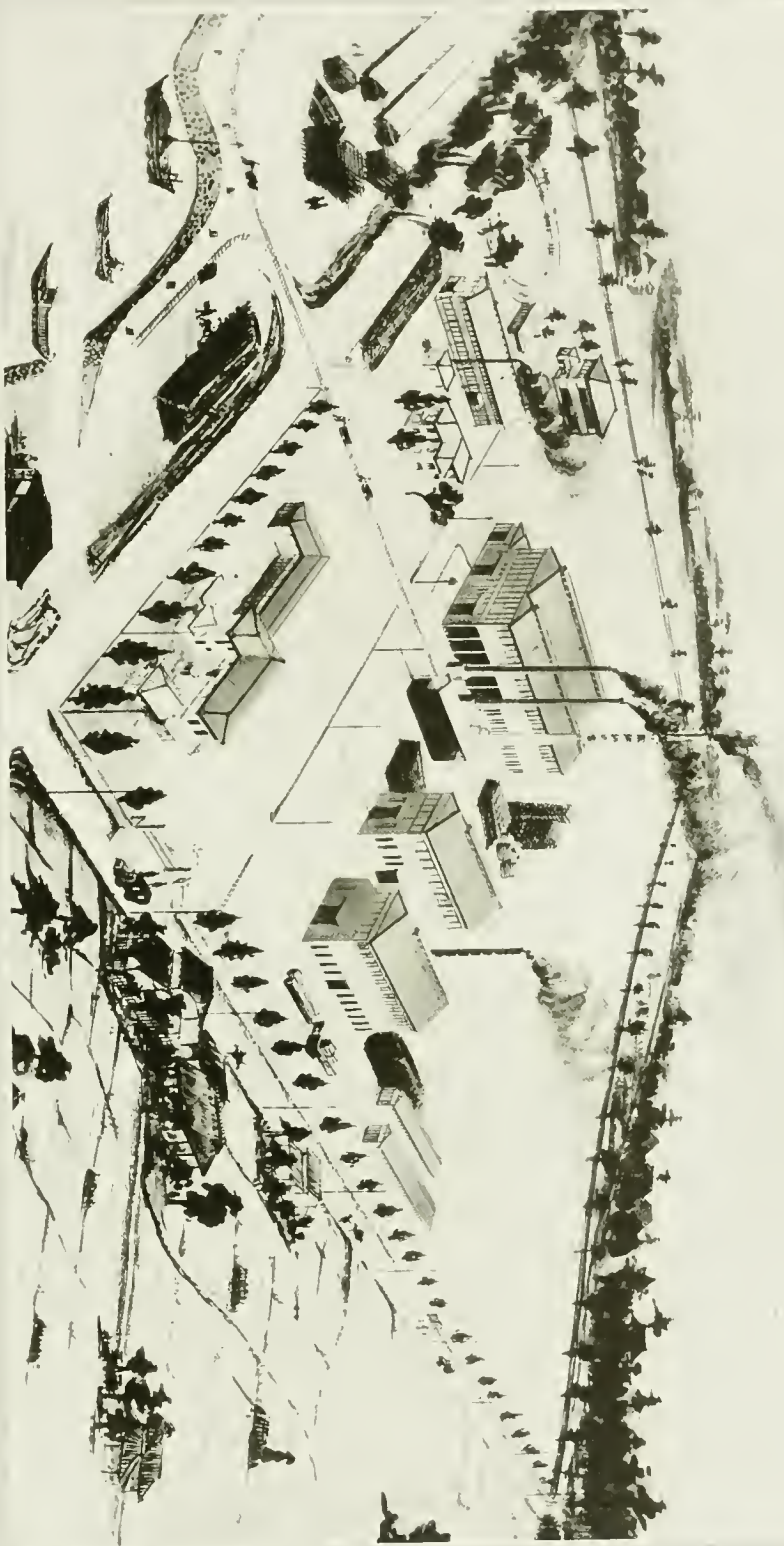
This firm deals extensively in metals, machinery, shipbuilding material, and electrical appliances, and is under the expert direction of Mr. Masayuki Naruse, who is the sole proprietor. Mr. Naruse is particularly well qualified for the business he conducts, and his record has established a confidence in

the Seiko Shokai which largely accounts for the prosperity which the firm enjoys. Mr. Naruse, who, by the way, is a brother of Mr. Masayasu Naruse, President of the Fifteenth Bank, Ltd., was born in Kagawa Prefecture, forty-two years ago. He was graduated from the Keio College, and won the travelling scholarship awarded by the Department of Agriculture and Commerce, entitling him to proceed to America for five years' business training. Mr. Naruse closely studied the subjects of iron works and shipbuilding in the United States, and on his return to Japan entered the service of the Kawasaki Dockyard Co., Ltd. In this famous company's employment he spent twelve years, and was promoted to be Chief of the Godown Department. During the Russo-Japanese War he did valuable service for the Empire and was awarded the Sixth Rank and the Zuiho Decoration. Mr. Naruse resigned from the Kawasaki Company and entered upon business on his own account, founding the firm of which he is now principal.

When the war broke out in 1914 Mr. Naruse realised the value of large ships, and to the great surprise of his business friends he was one of the first to invest in shipping, purchasing five or six vessels, at advantageous prices. Throughout his business career Mr. Naruse has shown independent and progressive tendencies. He studies various problems closely and then acts on his own judgment, which is sound and safe. In this way he has made his business very prosperous and he is regarded as one of the shrewdest of modern commercial men. The head office of the Seiko Shokai is at No. 2 Kaigan-dori, 3rd Street, Kobé, and there are branches at Tokyo and Hakata. The Tokyo branch engages in the direct importation of steel plate, pig iron, motor cars, machinery, etc. The Hakata branch acts as agent for the Kuhara Mining Company's Hidachi Factory in the sale of electrical manufactures. The Kobé branch of the Seiko Shokai trades in shipbuilding materials, engines, boilers, and machinery generally, and has special contracts with the following well known companies: The Japan Steel Works, Ltd., Shinagawa Fire Brick Co., Ltd., the Japan Paint Co., Ltd., the Furukawa Gomei Kaisha, and the S. K. F. Ball-bearing Manufacturing Co.

THE OSAKA STEEL MANUFACTURING CO., LIMITED

ONE of the problems before Japan is the production of iron and steel. It is largely a question of getting the supplies of iron ore, because there are a number of first-class plants for the treatment of the raw material, and already in the works of the Osaka Steel Manufacturing Co., Ltd., iron and steel ingots



PANORAMIC VIEW OF THE WORKS OF THE FUJI STEEL CO., LTD., AT KAWASAKI, KANAGAWAKEN



VIEW OF KOBÉ HILL

and bars are being turned out in large quantities. It is confidently expected that these works will start the production of pig iron from the ore, a few months hence, and plans are already nearing completion to effect that purpose, one proposal being that the capital of the concern shall be increased to the sum of Yen 15,000,000.

The Osaka Steel Manufacturing Co., Ltd., is the only company of its kind in Osaka, which is one of the most active centres of manufacturing industries in the entire Orient. It was established in 1915, with a capital of Yen 5,000,000. Mr. K. Tsuda, the President of the company, is perhaps the leading iron merchant in Japan. Mr. Y. Kurimoto is Managing Director. He is a Master of Laws, graduated from the Imperial University, and is, moreover, a thoroughly scientific and highly experienced iron-master. Mr. Kurimoto is the owner of the Kurimoto Iron Works, a member of the Osaka Chamber of Commerce, and a Director of the Osaka Industrial Society. The Chief Engineer, and also a director, Mr. U. Hayakawa, was at one time Chief of the Engineering Department of the Yawata Iron Works. These three gentlemen are well known authorities on the iron industry of Japan, and under their direction it is confidently expected that the company will have a bright future, and prove of great service in overcoming Japan's industrial problem, so far as the production of iron is concerned.

The head office of the Osaka Steel Manufacturing Co., Ltd., and its works are situated on the western bank of the River Kizu, Minami-Okajimacho, Nishi-ku, Osaka. They are connected with the Osaka harbour by the River Kizu, and the harbour canal, so that large vessels, bringing raw materials and other supplies, can be moored directly in front of the works, thus facilitating and cheapening the cost of handling cargoes. In area, the site is about 30,000 *tsubo*, and the arrangement and capacity of the plant is as follows: Two 15-ton open hearth furnaces; two 25-ton open hearth furnaces; one small

bar mill and one plate mill; annual productive capacity, 43,000 kilo tons of steel ingots, 12,000 kilo tons of small sized steel bars, and 17,550 tons of steel plates. When the plant is entirely completed it is expected to turn out 27,000 kilo tons of steel ingots and 20,250 kilo tons of medium sized steel bars and shapes per annum, in addition to the quantities mentioned above. The importance of such a production can not be over-estimated, and when the treatment of iron ore and the manufacture of pig iron is realised, there will no doubt be a general feeling of appreciation of the enterprise which the Directors of the company have shown.

THE FUJI STEEL CO., LIMITED

THE rapid expansion of all industries in Japan, and especially of such great enterprises as shipbuilding and machinery construction, have made Japan a great consumer of steel, and has disclosed to many of her best business men the urgent necessity for making her as far as possible self-reliant in this direction. There can be no doubt that the ban on the export of steel from the United States brought the question more prominently than ever before Japanese iron-masters and engineers, and gave impetus to the movement to provide steel works in the country, and to open up local or nearby sources of iron ore. These are among the reasons which have brought about the establishment of such a powerful concern as the Fuji Seiko Kabushiki Kaisha, or Fuji Steel Co., Ltd.

This company was formally incorporated

on December 5, 1917, with a registered capital of Yen 6,000,000, the promoters being Messrs. Seki Hoshino, Shigeta Fujii, Shinichi Ibara, Shinkichi Tamura, Terugoro Fujii, Katsusaburo Watanabe, Fukusaburo Watanabe, Yoshifumi Murota, Ryosaku Kume, Raita Fujiyama, Shohachi Wakao, Masagoro Satow, and others, all well known in commerce and industrial circles in Japan. The company plans to manufacture the best quality of steel castings and forgings, and special lines of cast iron, steel, gun metal, etc., as well as many manufactures. An excellent factory site of 35,000 *tsubo* has been secured at Kawasaki, a suburb of Tokyo, about twelve miles from the metropolis, and about eight from Yokohama. No better position could be secured for convenience of traffic, etc. It is in close contact with the railways, rivers, and harbours through which all raw material must come and manufactured products pass. Close by are several large shipbuilding and engineering plants which are already large consumers of steel and iron, and electrical power can readily be obtained either from the adjacent works of the Keihin Electric Co., Ltd., or from hydro-electric sources at a reasonable price.

Now if we turn to examine what this powerful company has already done in the brief time it has been in existence we find that it has under construction for completion by the end of March, 1918, a great modern steel plant on the Kawasaki site described above. This factory will cover an area of 2,500 *tsubo*, or 90,000 square feet, and will be the last word in modern construction and



JAPANESE JUNKS IN KOBÉ HARBOUR

equipment, the main buildings being of reinforced concrete, with secondary buildings constructed of wood. The foundry is equipped with Siemens furnaces of 25, 15, and 10 tons capacity. Besides the above, a 600-ton press and 200 different kinds of machines, comprising smaller presses, steam hammers, large and small lathes, drilling machines, etc., are installed. As early as possible a 1,000-ton press will be added, and two 45-ton furnaces, the determination of the directors being to leave nothing undone that will make the plant equal to anything in Japan, and capable of carrying out any orders that come in. The products of the works already provided for will be: (1) All kinds of castings (brass, bronze, iron, semi-steel, and steel), malleable castings, chilled castings, etc. (2) Ingots; all kinds of forgings, such as piston rods, connecting rods, crank shafts, rudder frames, turbine rotaries, etc. (3) Special steel, shells, springs, etc. (4) Special materials for dynamos, internal combustion engines, aeroplanes, etc. In addition, the company will undertake the erection and repairing of any class of land

or marine machinery, and generally will be in a position to carry out all those undertakings, great or small, which we usually associate with a fully equipped iron and steel establishment. Provision is already made for the employment of some 1,500 hands, all of whom will be the most skilled mechanics the company can procure.

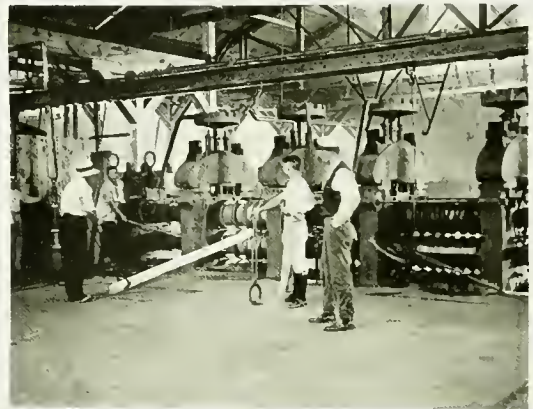
It may readily be seen what an important undertaking this is, and how materially it will help to solve the serious problem of making Japan less dependent upon foreign sources of supply for many of her steel and iron requirements. A number of these requirements, it is considered in some quarters, Japan can not possibly manufacture, but in the case of Fuji Steel Co., Ltd., there is unbounded confidence on the part of the directors that they can develop an industry of a substantial nature, because they have at their command all the necessary experience and skilled workmanship. It is hoped that the new works will be able to supply the Allies with the best quality of steel castings and forgings, and after the war they will be able to meet the

local demand and also export to China, India and elsewhere. It is claimed that such raw material as pig iron, etc., can readily be obtained from local sources, as well as from Korea, Manchuria, and China, while the great amount of scrap iron and steel that is still available in Japan will make the cost of products moderate.

The company certainly does not lack influential support. Among the promoters are the following well known men: Messrs. Tadasaburo Yamamoto, ship-owner; Fukusaburo Watanabe, President of the Watanabe Bank, Yokohama; Shinkichi Tamura, President of Tamura & Co. and President of the Kobé Chamber of Commerce; Seki Hoshino, President of United Society of Commersers in Tokyo and member of the Tokyo Chamber of Commerce; Shohachi Wakao, Director of the Wakao Bank of Tokyo; Tosuke Yamamoto, iron and copper merchant, Osaka; Masanosuke Naoki, match manufacturer, Kobé; Raita Fujiyama, President of the Tokyo Chamber of Commerce; Masagoro Satow, iron and copper merchant, Yokohama; Keizo Oaki, President of the Oaki Steamship



A FAMOUS TEMPLE ON MIYAJIMA ISLAND



TOKYO STEEL AND SPRING WORKS CO., LTD.: THE LABORATORY — THE SPRING TESTING ROOM — THE ROLLING MILL —
THE SPRING BANDING ROOM — DRAWING OFF THE METAL FROM THE SIEMENS FURNACE

Co., Tokyo; Ryosaku Kume, President of the Tokyo Gas Co.; Shigeta Fujii, Lieutenant-General (Reserve) of the Imperial Japanese Army; Yoshifumi Murota, Auditor of the Kanegafuchi Spinning Co., Ltd., and Manji Yotsumoto, ship-owner, Kobé.

The head office of the Fuji Steel Co., Ltd., is at No. 15 Hiyoshi-cho, Kyobashiku, Tokyo. The Board of Directors is as follows: Messrs. Seki Hoshino (President), Shigeta Fujii (Vice-President), Shinichi Hara, Shinkichi Tamura, Tadasaburo Yamamoto, Terugoro Fujii, and Katsusaburo Watanabe. Auditors are Messrs. Yoshifumi Murota, Mohei Suzuki, and Masagoro Satow.

TOKYO STEEL AND SPRING WORKS CO., LIMITED

ALTHOUGH the iron and steel and associated industries of Japan have made wonderful strides during the past few years, it is quite evident that in certain special lines the country will not be able to supply its own needs for some years to come. The deficiency in this respect has been most marked since the outbreak of war, when the normal importation of such articles as special steels, springs, tool steel and so on, was seriously interfered with. The position became worse when Britain and the United States placed further restrictions on the export of such lines. It can, therefore, be readily imagined what interest attaches to the enterprise which has been started by the Tokyo Steel and Spring Works Co., Ltd.

This company came into existence on April 14, 1917, having been organised by Mr. Kiyoshi Toh, with an initial capital of Yen 1,000,000, which has been fully paid up. It may be well to point out, however, that the programme before the company is such a large one, that this initial capital will not suffice, and accordingly the shareholders decided at a meeting held in October, 1917, to authorise a new capitalisation of Yen 3,000,000. The new concern, known by its Japanese title of the Tokyo Kozai Kabushiki Kaisha, bought out the Tokyo Steel Materials Engineering Works in Oshima-machi, in the suburbs of Tokyo, establishing there a larger and much better equipped factory, specially designed for the production of special steels, springs, etc., so largely in demand by the various general engineering works all over Japan. The need for a standardisation in this class of manufacture had long been realised by the steel and iron masters of the country. Mr. Toh has had a lengthy experience in mechanical engineering, and he was the right man to undertake the installation of the new plant.

Mr. Toh was born in 1872, the second son of Mr. Y. Wakaizumi, a Samurai, but

was adopted into the Toh family when a child. He studied in the Higher Technical College, being graduated from the Engineering Department in 1894. For ten years he served as an expert, or expert chief, in the Kanegafuchi Spinning Co., Ltd., the Ajini Spinning Company, the Japan Woollen Spinning Company, and the Fuji Gas Spinning Company. In 1904 he opened his own engineering works, his mind being fixed on meeting certain deficiencies which he had recognised during his experience with the various concerns mentioned. When with the Onagi and Fuji companies, fire destroyed the factories. Repairs to the machinery were all effected in Japan with the exception of the replacement of springs, and this gave Mr. Toh the idea to concentrate on their production. He opened his own factory, under the name of the Tokyo Spring Engineering Works, and despite many initial difficulties made a success of it, his plant being patronised by the Railway and Naval Departments. Later on Mr. Toh went thoroughly into the problem of producing spring steel, and his works became known as the Tokyo Steel Materials Engineering Factory. So that in both of these departments Mr. Toh was the pioneer, his works finally being reorganised in the new company with which we are now dealing.

The steel material department of the Tokyo Steel and Spring Works Co., Ltd., is equipped with two Siemens basic open furnaces, with a capacity of ten tons in one charge, using scrap or cast iron mixed with ferro-manganese ores, ferro-manganese, and ferro-silicon. Steel is also produced by the crucible furnace and electric furnace methods, in each case the highest quality of material being obtained at a low cost. The crucible and electric furnace steels are known in the trade as high speed steels. Their quality is so good that the company's product is in great demand for the same purposes as the material turned out at the Government Steel Works, and among the customers of the new industry are the Imperial Japanese Railways, the Department of Communications, and the Navy Department. The annual output of these various high grade steels is about 12,000 tons. At the spring-making shop the Tokyo Steel and Spring Works Co., Ltd., makes bearings springs, buffer springs, large helical springs and others, suitable for the requirements of railways, military armament, and general machinery.

It is unnecessary to go farther into the detail of the important industry conducted by the Tokyo Steel and Spring Works Co., Ltd. That such an industry is a natural development of manufacturing in Japan is obvious,

and the success which the company has realised is evidence alike to the soundness of its enterprise and the appreciation shown by manufacturers. The direction of the company is wise and progressive. Not only are the works and the equipment modern in every sense, but the welfare and training of the employees is being attended to in order to promote the interests of the workmen at the same time that the general standard of efficiency is raised. The head office and steel material shop of the company is located at No. 50 Oshima-machi, Rokuchoime, Minami Katsushika-gori, Tokyo-fu. The spring shop is at No. 658 Oshima-machi, Nichome. There are sub-branches at No. 30 Nakano-shima, Gochome, Osaka, and at Yairaku-cho, Seoul, Chosen. Factories and offices cover about 2,202 *tsubo*. New two-story buildings are under construction and will be completed in February, 1918. The Board of Directors of the Tokyo Steel and Spring Works Co., Ltd., is as follows: President, Mr. Kiyoshi Toh; Managing Director, Mr. Tomojiro Hayashiya; Directors, Messrs. Y. Wakaizumi, Dr. S. Ishimaru and K. Hanai; Auditors, Messrs. Y. Yamamoto and J. Hayashiya; Chief Engineer, Mr. R. Endo.

THE KOBÉ STEEL WORKS, MOJI BRANCH (KABUSHIKI KAISHA KOBÉ SEIKOSHO MOJI KOJO)

THIS concern is but a further example of the never flagging enterprise of the firm of Suzuki & Co., the sole proprietors. July 13, of 1917, will remain memorable in its history as the day upon which the construction of the works was commenced. The inauguration ceremony took place less than six months later and work was actually started in March, 1918, in other words, in less than eight months from the turning of the first sod. A further section of the works, at present under construction, will be completed with all installations by August of this year (1918), and will be ready to operate in September.

It may be observed that there is little to be said of the achievements of so youthful an enterprise, but as a branch of the famous Kobé Steel Works, although working independently, it will be admitted that a special significance attaches.

The new works are located at Dai-ri, forming one of the imposing group of industries referred to in the description of the Dai-ri Flour Mill, and command a view of the port of Shimonoseki across the bay. The buildings, of solid stone and brick, have a superficies of 5,425 *tsubo* and are installed with one 500 H. P., two 450 H. P., four 50 H. P., and two 5 H. P. electrical motors; one 50 H. P. vertical steam boiler, and one horizontal water-tube steam boiler.



THE KOBE STEEL WORKS: VIEWS OF THE WORKS AT DAIRI, MOJI

The output takes the form of copper and brass pipes and bars, high speed or tool steel, copper and brass plates, for the production of which the works are adequately installed, the plant including the following: Mannesman tube piercing machines, grooved rolling mills, hydraulic pipe and bar machines, cranes, etc.

From all reliable indications the annual output can safely be estimated as follows: pipes and tubes, 2,500 tons; bars, 2,500 tons; plates, 500 tons, and tool steel, 500 tons. No export is yet undertaken, the whole of the production being supplied to the naval and military arsenals of Japan.

The following gentlemen form the Board of Directors: Iwajiro Suzuki, Esq., President; Shosuke Yorioka, Managing Director (Kobé); Sakamitsu Morito, Managing Director (Dairi); Messrs. Kasinon Tamiya, Mantaro Matsuda, and Chujiro Matsuo, Directors, and Messrs. Koro Yoshii and Fujimatsu Yanagida, Auditors.

HAKODATE FISH NET MANUFACTURING AND SHIPBUILDERS' SUPPLY CO., LIMITED

THIS old established company practically controls one of the important industries of Japan, viz., that of making fishing nets, twine, and many shipping supplies, such as chain cable, rigging, etc. The business has been brought to a state of high perfection, mainly through the efforts of Mr. Yasutaro Okamoto, the President, who has been connected with the industry all his life. Mr. Okamoto had his own factory in operation more than thirty years ago. It was in April, 1911, that he formed the Hakodate Fish Net Co., which was an amalgamation of the Okamoto Fish Net Co. and the Hokkaido Machine Made Net Co., Ltd.'s, business department. The original capital was Yen 100,000. For one year the new company conducted operations on a moderate scale, but more recently great extensions have taken place. In December, 1912, the capital was increased to Yen 200,000. The following year the company was turned into a joint-stock concern, and the title was altered to the Hakodate Seimosengu Kabushiki Kaisha, at the same time as the ship-chandlery business of Hidzume Shoten was absorbed, and the capital was increased to Yen 300,000. A further increase of the capital by Yen 30,000 was made in November, 1916, when the whole of the interests of the old Hokkaido Machine Made Net Co., Ltd., were purchased. Finally the capital of the company was raised to Yen 1,000,000, on September 20, 1917. Of this sum, Yen 497,500 is paid up, and the sundry reserves and undistributed balances total Yen 656,473, a very satisfactory financial position.



CABLE CHAIN WORKS OF HAKODATE FISH NET & SHIPBUILDERS' SUPPLY CO., LTD.,
AT FUKAGAWA, TOKYO

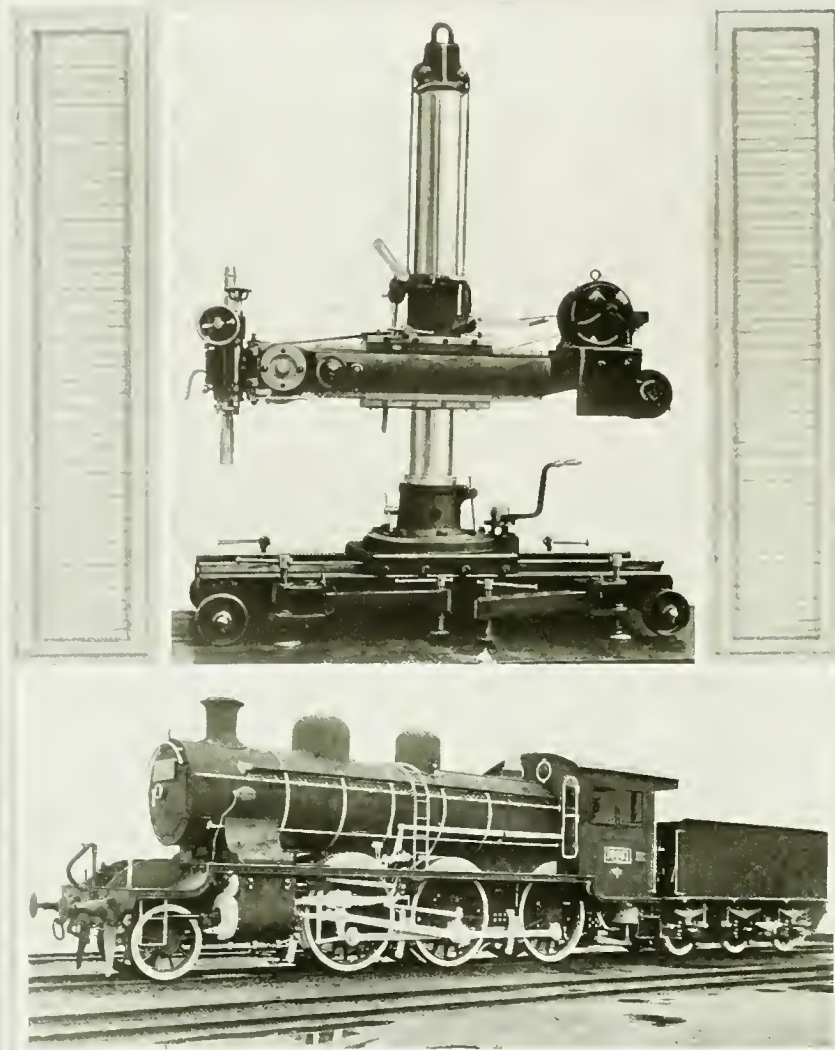
The head office of the Hakodate Fish Net Manufacturing and Shipbuilders' Supply Co., Ltd., is at No. 84 Suyehiro-cho, Hakodate City. A branch office is at No. 100 Suyehiro-cho, Hakodate, under the management of Mr. K. Suyetomi. The main Shipping Supplies Department is at Nos. 31 and 32 Higashihama-cho, Hakodate, under the management of Mr. H. Hidzume. Through this department the company deals extensively in copper, iron, ship fittings and materials, machinery, engineering requisites and so on. The Tokyo branch office is at No. 14 Kitashimburi-cho, Nihonbashi-ku. Here the company does an extensive trade as importers and salesmen of engineering plant and machinery, steel and iron material for shipbuilding, rails and other railway equipment, and general import and export. The Managing Director of the company, Mr. T. Hidzume, is in charge of this important department. There is also a Shipping Supplies Department at Otaru, Hokkaido, under the management of Mr. S. Yashiki, and a Fish Net and Fishing Supplies Branch in the same port under Mr. Y. Akio. It will therefore be seen how widely spread throughout Japan the company is.

The principal factories are located as follows: No. 1 Factory, for the production of cotton yarn, twisted thread, and machine made fish nets, at No. 5 Goryokaku-dori, Hakodate; No. 2 Hakodate Factory, for cotton yarn, twisted thread, and machine and hand made nets, at Kameda-mura, near

Hakodate; No. 3 Hakodate Factory, for machine made nets, at Matsukaze-cho, Hakodate; No. 4 Factory, for machine and hand made nets, at Naibo-mura, near Sapporo; No. 5 Factory, for strong hemp thread and machine made nets, at Sendai; No. 6 Factory, for strong hemp thread, at Tamachi, Hamamatsu. Last, but not least, is the modern and well equipped chain cable making factory at No. 116 Higashi, Hirai-cho, Fukagawa-ku, Tokyo. Here the Hakodate Fish Net Manufacturing and Shipbuilders' Supply Co., Ltd., has established a very important industry, turning out chain of all sizes, and particularly heavy cable for ships' use. Some idea of the development of the company's vast interests may be gathered from the figures relative to the production of various articles. The following tabulation shows the annual production for the periods mentioned:

| | |
|-----------------------------|---------------|
| Dec., 1914—Nov., 1915..... | Yen 1,571,405 |
| Dec., 1915—Nov., 1916..... | " 1,981,871 |
| Dec., 1916—Sept., 1917..... | " 3,891,780 |

The total area covered by the company's various factories is 3,860 *tsubo*. Included in the plant are 230 patented machines for fishing net manufacture, etc., and the number of hands engaged is over 1,250. Following are the principal officers of the company: President, Mr. Yasutaro Okamoto; Managing Directors, Messrs. Kojiro Suyetomi and Teitaro Hidzume; Director, Mr. Sanjiro



PORTABLE UNIVERSAL RADIAL DRILLING MACHINE, BUILT BY KISHA SEIZO KAISHA (LOCOMOTIVE MANUFACTURING CO., LTD.)—TYPE OF LOCOMOTIVE BUILT BY THE FIRM

Sugino; Auditors, Messrs. Kunitaro Kamei and Zenkichi Tachikawa; Advisor, Mr. Koichiro Oguma.

LOCOMOTIVE MANUFACTURING CO., LIMITED

THE Kisha Seizo Kaisha, or Locomotive Manufacturing Co., came into existence in September, 1896. It was promoted by the late Viscount Inouye, who was a pioneer of railways in Japan, and was originally a joint-capital concern with a capital of Yen 640,000. Since that time, of course, the industry has developed rapidly, and the company has gone from one stage of success to another, until to-day it must be numbered among the very large industrial manufacturing concerns of the country.

In July, 1901, the Hiraoka Factory at Tokyo was purchased by the company and

was made the Tokyo branch works. The style of the company was altered in October, 1912, and it became a joint-stock liability organisation. The following month the capital was increased to Yen 2,700,000, of which sum Yen 975,300 has still to be called up as the necessity arises. The company's reserve fund amounted to Yen 674,051 in August, 1917.

The Locomotive Manufacturing Co., Ltd., builds locomotives and passenger and freight cars for the Government or for private railways. The number so far constructed is over 10,000, and in addition, the company has built about 45,000 tons of steel work for bridges. An idea of the manufacturing capacity of the company's plants may be gathered from the statement that the annual output is 100 locomotives, 200 bogie cars, 3,500 freight cars, 500 machines of different

kinds, and about 8,000 tons of bridge work, etc.

The company's sites cover about 28,000 *tsubo*, and the buildings have a ground area of 7,000 *tsubo*. Annual sales total Yen 4,580,000. Nearly 2,000 well trained workmen are employed.

The Locomotive Manufacturing Co., Ltd., includes among its clients the Imperial Railway Bureau, the Formosa Railways, the South Manchuria Railway Co., Mitsubishi Shipbuilding Yard at Nagasaki and Kobé, Naval Arsenals, the Military Arsenals at Osaka, Kawasaki Dockyard Co., Kobé, Osaka Iron Works, Ltd., Okura & Co., and Takata & Co., Alfred Herbert, Ltd., and many customers in India, China, and the South Seas. Agents for the company are Takata & Co., Tokyo, and Alfred Herbert, Ltd., Yokohama.

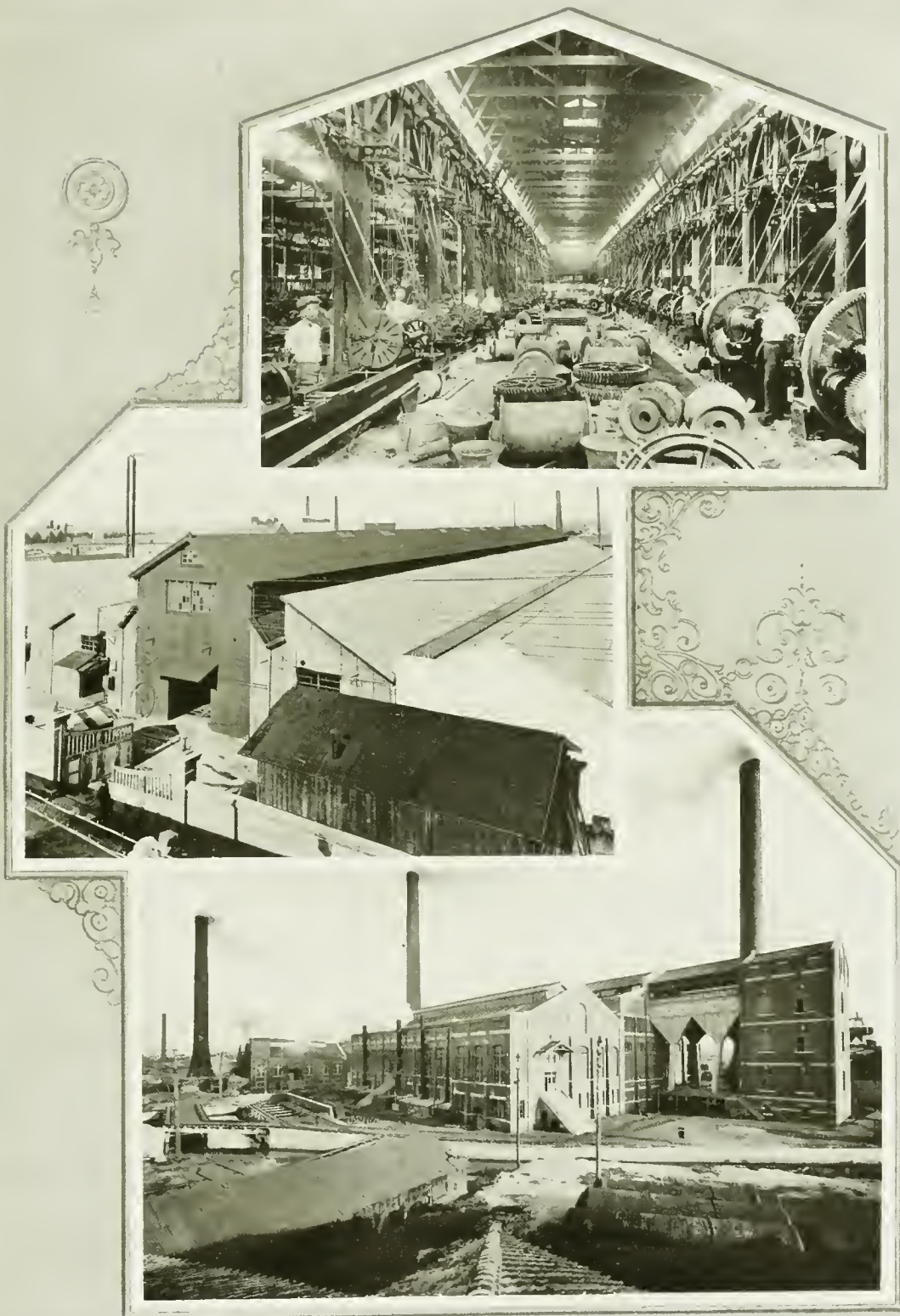
Following is a list of the principal lines of this well equipped company: Railway locomotive, steam motor car, passenger car, goods and steel coal car, steel bridge-work, turntable, railway point and crossing, engineering machinery and general structural steel and iron work, etc.

The staffs of the Locomotive Manufacturing Co., Ltd., includes Mr. Izuha, manager and chief engineer at the Osaka works, assisted by 84 technical experts, and Mr. S. Murakami, manager and chief engineer at the Tokyo branch works, assisted by 50 technical experts.

Dr. S. Hasegawa (Doctor of Technology) is the Managing Director. The Board of Directors comprises Mr. R. Hiraoka as Adviser. The Auditors are Messrs. T. Tanabe and T. Hano. The company's main workshops and head office are at Shimaya-cho, Nishiku, Osaka, and the Tokyo workshops are at Kinshi-cho, Honjoku, Tokyo.

NIIGATA TEKKOSHO

THE remarkable development which has taken place in the industrial life of Japan is in no direction more pronounced than in mechanical engineering, and in the manufacture of machinery. Japan possesses to-day some of the greatest engineering and construction plants in the world, and their services have been of immeasurable value to the Allied cause in this war. We have only to consider the shipbuilding plants, and the works that have been placed on munition making to recognise this fact. In no way secondary to these large enterprises are the machine shops and engineering works, from which a steadily increasing output of mechanical appliances, necessary to the various industries and construction concerns, is being recorded. In this category of important enterprises is the name of the Niigata



OSAKA ELECTRIC LIGHT CO., LTD.: INTERIOR AND EXTERIOR VIEWS OF THE WORKS AND THE POWER STATION

Tekkoshō, or the Niigata Engineering Works, Ltd. This company has been engaged for years in the manufacture of all kinds of plant for industrial and public utility work. In its works and yards, perfectly equipped to handle any orders, the company is engaged in the building of oil engines, for stationary and marine use, and several kinds of machine

for over 1,500 persons, and the annual salaries and wages bill exceeds Yen 470,000. At the present the Niigata Engineering Works, Ltd., has an average annual output of work of the value of Yen 3,500,000, and its capacity is being increased to take care of any future orders. The products of the plants are, of course, largely destined for



GENERAL VIEW OF FACTORY AND MACHINE SHOP OF KABUSHIKI KAISHA NIIGATA TEKKOSHŌ
(NIIGATA ENGINEERING WORKS, LTD.)

tools, especially in their Tokyo works; the manufacture of many classes of pumps, and heavy pumping machinery for big undertakings; oil well machinery, steam engines, boilers, and also the building of ships of wood and iron.

The business was founded in 1895 by the late Mr. Gonzaburo Yamaguchi, and Mr. Hisahiro Naito, who is now President of the Japan Oil Co., Ltd. The original capital was Yen 100,000, but with the growth of the business this was extended and increased on several occasions until to-day its stands at Yen 2,000,000. The head office of the Niigata Engineering Works, Ltd., is at No. 5, Sanchome, Yurakucho, Kojimachiku, Tokyo. At Tokyo the works cover an area of two acres; at Kashiwazaki, one acre; at Nagaoka, 0.7 acre; at Tsuchizaki, 1.5 acres. The principal works are at Niigata, where the company's property extends over forty acres. All the plants are modern in every sense, the most accurate machines and labour-saving appliances being utilised. The buildings are of brick, steel, and reinforced concrete, constructed on up-to-date lines, and specially designed for the work which the company carries on. In the various plants and the offices employment is found

use in Japan, but the company also manufactures for the foreign markets and is now exporting to Russia, China, Australia, and India. The President of the company is Mr. Tatsutaro Yamaguchi. Mr. Kichiro Sasamura is the Managing Director, and the Directors are as follows: Messrs. Hisahiro Naito, Shinsaku Homma, and Sansaku Kagitomi. The principal officers are: Auditors, Messrs. Hidesaburo Kusumi, Chutaro Nakano, and Kuranosuke Saito; General Manager, Mr. Kichijiro Nagashima; Superintendent of Sales Department, Mr. Sataro Kumazaki; Works Manager (Tokyo), Mr. Tadashi Motogi; Works Manager (Niigata), Mr. Kozo Kigawa.

OSAKA ELECTRIC LIGHT CO., LIMITED

THIS great company, which has a capital of Yen 21,600,000 fully paid up, was established in 1888, the promoters being Mr. Z. Konoike and nineteen others, who subscribed the original capital of Yen 400,000. Business was actually started in May, 1889, with a small generating station at Ajikawa in Osaka. Generally speaking, the company experienced a successful career in its initial stages, and the business expanded steadily, calling for increase in capital and the erec-

tion of new plants at such places as Saiwacho and Honden. Furthermore, the Osaka Electric Light Co., Ltd., established power stations in western Japan at such centres as Moji, Sakai, Saseho, and Maizuru, but these outlying stations and plants were subsequently sold to other concerns and the company concentrated attention on the growing demands of the rapidly developing great commercial and industrial centre of Osaka. In 1906 a contract was entered into with the city authorities for the lighting of Osaka, and that arrangement has continued ever since, the contract leaving the company a fair margin of profit above installation and running expenses. Up to 1897 the sole business done was in the sale of electric current for lighting purposes, but after that date the Osaka Electric Light Co., Ltd., generated current for power purposes, and it is now disposing of over 5,500 horsepower for industrial purposes. A large generating plant was installed at the Ajikawa station in 1908, and the stations at Saiwacho and Honden were then abolished, further power being obtained under contract with the Ujigawa Electric Co., Ltd., from the latter's water-driven plant at Ujimachi. The demand on the company's generating capacity rapidly increased as Osaka rose in commercial and industrial importance, and two new stations had to be provided, one at East Ajikawa and the other at West Ajikawa, a combined capacity for 25,000 kilowatts. With this system installed, and the supply from the Ujigawa Electric Co., Ltd., in operation, the old station at Ajikawa was abolished. Since the war, however, the development in Osaka has been so rapid and phenomenal, that the Osaka Electric Co., Ltd., has been forced to make further large extensions in its plant. To this end a new station has been opened at Kasugade, and the following generating force is being installed: West Ajikawa, 5 turbo-generators, made by Westinghouse, each of 3,000 k. w., 1,800 r. p. m.; East Ajikawa, 2 turbo-generators (Westinghouse), each of 5,000 k. w., 1,800 r. p. m.; 1 turbo-generator, made by the Mitsubishi Co. at Nagasaki, 12,500, 1,800 r. p. m.; and 2 generators of 25,000 k. w., each 1,000 r. p. m.

In addition to the supply of current for lighting and power purposes, the Osaka Electric Light Co., Ltd., manufactures and sells electrical machinery and instruments, and is the owner of several investments in electrical undertakings. A factory was established in 1894 at Nakanoshima, Kitaku, Osaka, for the manufacture and repair of machinery and instruments used by the company, and for the public. Since that time several new factories have been built,



UJIGAWA ELECTRIC CO., LTD.: THE OVERFLOW — THE OSAKA OFFICES — THE REGULATOR GATES — UJI POWER HOUSE

and the manufacturing side of the company's enterprise has been widely extended, one particular line being the production of cotton-coated copper wire for general installation. Factories were established at Nakanoshima, Sakai, and Nishinoda, but the latter was

in its various plants, factories, and offices. The head office of the company is at No. 60 Nakanoshima, Kita-ku, Osaka. The Directors are Messrs. T. Sakano, J. Terada, B. Hiraga, T. Shima, and the Auditors are Messrs. T. Fujita, N. Nagata, and S. Gion.



A TEMPLE AT NIKKO

destroyed by fire in 1917. Thereupon the company purchased a site belonging to the Osaka Iron Works, and another factory was erected there. When the works are fully equipped and organised according to present plans, it is expected that the output of electrical machines, appliances, wire, etc., and repairs will amount in value to over Yen 4,000,000 per annum. Viewed from the financial point, the business of the Osaka Electric Light Co., Ltd., has been highly successful. From the first half of 1910 a sound system of distributing profits has been followed, and this has had the result of equalising dividends and strengthening the position of the company. For the half-year ended June 30, 1917, the gross revenue, including the balance brought forward from the previous term, was Yen 4,278,137.05, which latter, deducting gross expenses of Yen 2,738,730.40, resulted in a net divisible profit of Yen 1,539,406.64. From this sum a dividend of 12 per cent was paid, absorbing Yen 1,152,000; Yen 255,000 was placed to reserve; a bonus of Yen 55,000 was distributed, and Yen 87,406 was carried forward. The dividend of 12 per cent has been paid regularly every half-year since 1915. Including the technical staff, the Osaka Electric Light Co., Ltd., employs 2,401 persons

UJIGAWA ELECTRIC COMPANY, LIMITED

JAPAN is fortunate in the possession of ample sources of water power, the value of which has been recognised by several enterprises, such as the Ujigawa Electric Company, Limited. This company furnishes the busy industrial and commercial city of Osaka with an immense volume of electrical current for light and power, at a price that for cheapness can hardly be outdone, and it is indeed questionable whether this fortunate state of affairs is not largely responsible for the remarkable growth and prosperity of the important industries located in that city. As an engineering enterprise, the work of the Ujigawa Electric Co., Ltd., is one of the largest in Japan. The company was organised in October, 1906, and the following month obtained authority to develop its plans and enter upon the supply of electrical current. Preliminary surveys and other works occupied the company till December, 1908, when it started on the installation of its power plant. The construction of channels, tunnels and other works occupied several years, and business with the public was not actually entered upon till August 1, 1913, when Osaka found herself in possession of one of the best power systems yet devised. The Ujigawa

Company's scheme comprises the tapping of the River Seta at Ishiyama Village in the Province of Omi; a power station at Ujimachi, and several substations in Osaka and its environs. At Ishiyama an inlet was made on the right bank of the River Seta, which flows out strongly from Lake Biwa. The water is taken into the company's channel at the rate of 2,200 cubic feet per second, and is then conducted by channels and tunnels 36,790 feet long, with a slope of 1 in 2,000, to the electrical power station at Ujimachi. The water reaches the turbines through six iron pipes of 8 feet inside diameter, having a fall of 203.77. The turbines, of spiral type, move at 360 revolutions per minute, and develop 8,100 horsepower. The turbines and generators are installed in a brick building which covers 626 *tsubo*. There are six generators, each having a capacity of three phases, 60 cycles, and 12,000 volts, 7,000 kilo volt amperes. The total volume of electricity generated by this plant is 48,600 horsepower. A part of this power is sent to the Toji substation of the Kyoto Electric Light Co., at Higashi Kujo Village, Kyoto, the main line being about 8 miles in length and carrying a load of 12,000 volts. The other part of the power (raised to 55,000 volts) generated at Ujimachi goes by wire, a distance of 22 miles, to the Noye substation, Osaka. There the current is reduced to 11,000 volts, and is sent to the two substations of the company at Yebiye and Dotombori, in which the current, being once more reduced to 3,500 volts, is distributed to Osaka and its environs. Other substations are now being constructed for the further supply of current. Since the business was opened in 1913 the demands on the Ujigawa Electric Company's service have steadily increased, and at the end of August, 1917, the total horsepower employed was 43,268, covering 4,191 factories and works. The company is also supplying 20,000 kilowatts to the Osaka Electric Light Co., 4,000 kilowatts to the Kyoto Electric Light Co., and 2,000 kilowatts to the Osaka Electric Tramway. So rapid has been the advance of industrial enterprise at Osaka, however, that the Ujigawa Electric Company's service is likely to prove insufficient in the near future. An extension is contemplated and the company has already lodged an application with the authorities for permission to install another water power generating plant to produce 25,000 kilowatts, and a fire power plant for 30,000 kilowatts. As permission for the latter has already been granted this work will be put in hand.

THE KAWAKITA ELECTRICAL COMPANY, LIMITED

A LARGE item in the foreign trade of Japan is the export of electrical machinery, appli-



KAWAKITA DENKI KIGYOSHA KABUSHIKI KAISHA (KAWAKITA ELECTRICAL CO., LTD.): THE OSAKA OFFICES—GENERAL VIEW
OF THE WORKS—INTERIOR OF THE ELECTRIC WORK AT OSAKA

ances, and parts, the manufacture of which has developed to a remarkable extent within the last few years. It is, indeed, a matter of great surprise to all foreign students of the industrial growth of Japan, to learn that a country which about twenty-five years ago imported its first electric motor, should to-day be not only supplying the great bulk of its own domestic requirements, but exporting some millions of yens' worth of

regarded by other electrical concerns as good profitable undertakings, but the Kawakita Company made them successful. The company also reorganised some already existing plants, and turned them into profitable enterprises, by bringing to bear on the undertakings sound business methods and proper technical control, in place of bad administration and faulty engineering. As examples of the company's success in this direction may

fan-motors and other ventilating appliances, watt-hour meters, mine lamps, and other electric installation apparatus and materials. Some idea of the extent of the productive capacity of the manufacturing plant may be gathered from the statement that the works turn out over Yen 3,800,000 worth of electrical goods and appliances per annum, among which are the following items: dynamos and motors, Yen 2,000,000; pole transformers,



VIEWS IN ARASHIYAMA, KYOTO

electrical manufactures annually. Electrical manufacturing enterprises are not industries that come naturally to any country. To be successful they must have behind them large organisations of capital and technical skill, and the degree of importance to which such enterprises have attained in Japan is evidence of sound business knowledge, capable management, and close study of electrical science. Amongst the greatest of the Japanese concerns in this branch of industry is the Kawakita Denki Kigyosha Kabushiki Kaisha, or the Kawakita Electrical Company, Ltd. This company is not a very old one, but it has had a remarkably successful career, and is an enterprise that bids fair to rival some of the greatest electrical manufacturing organisations of the world.

The Kawakita Electrical Co., Ltd., was organised in July, 1909, as an ordinary company, with a comparatively small capital, but with plenty of financial support available through the friends of the founder of the enterprise. At first the company endeavoured, acting as promoters and financiers, to establish a few hydro-electric light and power plants in the western part of Japan. Some of these undertakings, for instance, were the Miye Kyodo Denki Kaisha, the Ohmi Suiryoku Denki Kaisha, the Hase Suiden Kaisha, and others. These schemes had not hitherto been

be cited the Nagasaki Dento Kaisha, the Hiroshima Dento Kaisha, and the Matzuye Dento Kaisha. Attention was directed also to the manufacture of certain lines that could be produced locally in competition with imported goods. In the meanwhile the Kawakita Company was reorganised in April, 1913, into a joint-stock company, with a capital of Yen 1,000,000. After achieving good results as a manufacturing concern the company extended its factory, as well as its sales department, and at present is carrying on business with a capital of Yen 3,000,000, which is to be increased in the near future. The company's branches to-day comprise: The manufacture of electrical machines; import and export of electrical appliances, machinery, parts, etc. There is hardly a branch of electrical manufacturing that is not conducted in the extensive works of the company. Moreover, the Kawakita Electrical Company, Ltd., is interested very largely in electrical engineering in its broader aspects, operating as a general contracting company for electric installations, plants, and projects, carrying out public and civil undertakings, and acting as promoters and financiers of electric light and power schemes. The manufacturing side of the enterprise embraces the making of every kind of electrical machinery, dynamos, motors, transformers, switch-boards,

Yen 400,000; large transformers, Yen 500,000; table and ceiling fans, Yen 600,000; watt-hour meters, Yen 100,000; and other appliances, Yen 200,000. The customers of the company comprise practically all the electric light, power, and railway companies in Japan, mining, spinning, and industrial companies generally, and factories where electricity is the motive power. The bulk of the export trade is done with China, India, and Australia, but many new markets are being opened up.

The Kawakita Electrical Co., Ltd., has an exceptionally large and modern factory at Imafuku near Osaka. The site is about 20,000 *tsubo*, with extensions now going on to make the area 60,000 *tsubo*. In this fine plant, which covers about 4,000 *tsubo*, the best and most modern machinery in Japan is installed, giving the company the greatest productive capacity and ensuring economy of manufacture, with the highest quality of goods. A feature of the installation is the excellent testing machinery, which ensures the highest standards of accuracy in all manufactures. Electric power is employed throughout. Apart from the technical experts and clerical staffs, totalling 300, in the various offices and at the works, about 1,500 hands are employed regularly. As importers and exporters of electrical manufactures, or the materials thereof, the



TWO VIEWS OF THE PREMISES OF THE CHICHIBU ELECTRIC WIRE WORKS, LIMITED

company has a very wide range of operations. Imported lines include electrical sheet iron, magnets, insulation materials, and other requisites for the manufacture of machines and apparatus, as well as some imports of completed manufactures. The imports come from the United States, Great Britain, Switzerland and other countries.

The head office of the Kawakita Electrical Co., Ltd., is at No. 65 Itchome, Dojima-Hamadori, Kita-ku, Osaka. A large storage godown is maintained at Fukushima. There are branches of the company at Sonezaki in Osaka, and also at Tokyo, Fukuoka, and Shanghai, and sub-branches at Niigata, Sendai, Sapporo, Kyoto, Hiroshima, Kokura, Ohita, Nakatsu, Taihoku (Formosa), and Amoy (China). Agencies are established at Moji, Nagoya, Nagasaki, Kumamoto, and Dairen, each having showrooms and godowns of larger or smaller capacity. Mr. Y. Kawakita, founder of the enterprise, is the President of the company, and his co-directors are Messrs. J. Noguchi and H. Koga. Mr. F. Raison is the Auditor and Mr. K. Yamura the Manager.

CHICHIBU ELECTRIC WIRE MANUFACTURING CO., LIMITED

ELECTRICAL engineering has more than kept pace with other industrial developments in Japan, and many highly important associated industries have sprung up. One of these is the manufacture of electric wire, cables, etc., and in this work the Chichibu Electric Wire Manufacturing Co., Ltd., has taken a foremost position.

This company's business was originally the private enterprise of Mr. Sadaharu Chichibu, who began the manufacture of wire for electrical engineering purposes in 1906, establishing a factory at Aoyama, Tokyo, for that purpose. The work went on satisfactorily, and Mr. Chichibu was able to supply a large portion of the local demand for wires and cables, so much so that in 1911 he was compelled to erect a new and larger factory at Shibuya, Tokyo. The output was considerably increased, in keeping with the expansion of the industry generally, and an export trade was entered upon. With the outbreak of the European war and the cutting off of a large portion of

foreign supplies, Mr. Chichibu's industry developed at a very rapid pace. Capital was required to enlarge the works and extend the field of operations, and to this purpose the private enterprise was reorganised in September, 1915, as a limited liability company. Mr. Osuke Asano, Professor of Technology, joined the company, and the plant was enlarged and improved in various directions.

The company owns a number of patents dealing with the manufacture of wire and cable, as well as patents for devices for testing insulations and so on, it being conceded that some of the best and most modern ideas are involved in the work. The principal items of manufacture by this company are: magneto wire, signal wire, telephone wire, military telegraphic wire, high power electrical cables, electric lamp cord, insulating compound and varnish and accessories for cables, etc. "Chichibu" patented wire is insulated with an elastic compound that yields with the bending of the core wire, instead of India rubber. This compound is covered with a strong tape made from pure Japanese paper, and is then covered with



KYUSHU ELECTRIC WIRE MANUFACTURING CO., LTD.: BRAIDING WIRE IN THE WIRE DEPARTMENT—LEAD PLATE DEPARTMENT—
GENERAL VIEW OF THE WORKS AT DAIRI, MOJI

several layers of protective composition. By this special process the quality of the wire does not deteriorate for a very long time, and the efficiency of the cable is not affected by moisture, acids, salts, gas, etc. It is claimed for the wire turned out by the Chichibu Electric Wire Manufacturing Co., Ltd., that it has the following special features: It insulates well, stands high pressure and lasts long; it can be used for electrical installations at the seashore, hot springs, mines, and in other cases where a special class of wire is generally needed; contrary to rubber insulated wire, the "Chichibu" wire can be used in conjunction with metals without any fear; it is light in weight, so that the cost of transportation is not heavy; the "Chichibu" wire can be repaired easily, because the wire does not change into copper sulphide, and even when the wire is discarded and is cut into small pieces it can be disposed of as "scrap" material at a high price; and finally, as the raw material used is not imported, the "Chichibu" wire can be made and sold at a low price.

That the company is turning out a high-class product may be judged from the fact that testimonials have been received on no less than six occasions from the Electric Experimental Station of the Imperial Government, and also from the Shibaura Iron Works, the Asano Cement Company, the Kanto Sanso Chemical Co., Ltd., and from the Dai-Nippon Artificial Fertilizer Co., Ltd. The head office of the Chichibu Electric Wire Manufacturing Co., Ltd., is at No. 934 Shimo Shibuya, Tokyo. Mr. C. Chichibu is the President of the organisation.

KYUSHU ELECTRIC WIRE MANUFACTURING CO., LIMITED. (KYUSHU DENSEN SEIZO KABUSHIKI KAISHA)

It is almost impossible to avoid referring continually to the enormous growth of Japanese industry, especially since the War, when entering upon a description of any particular line of the country's activities, and this remark has especial weight in connection with the electrical manufacturing industry. The number of huge companies manufacturing electrical supplies to-day in Japan is, to say the least, astonishing, and although the country has not yet any concern of Westinghouse dimensions, there are, at least, enterprises with which the Westinghouse Company has thought it convenient to form intimate connections.

The all-important problem at present occupying the attention of business men in connection with Japan is, how peace in Europe will affect her. We put this question, as far as it concerns the wire manufacturing industry, to Mr. Shimpei Higasa,

the astute Managing Director of the Kyushu Electric Wire Manufacturing Co., Ltd. Mr. Higasa expressed the emphatic opinion that this trade will be maintained, at least. He pointed out that Japan ranks high among the copper-producing countries of the world, and that rubber is produced nearer to Japan than to any other great manufacturing country. Japan produces both cotton and hemp, and silk to a much more important degree, which advantages, combined with an ample supply of labour particularly suited to just this kind of work, surely warrants an optimistic outlook. This gentleman's opinion sheds an interesting light on the subject. Moreover, it must be granted that such observations apply equally to the manufacture of all electrical goods.

A further indication may be deduced from the history of the electrical wire industry in Japan.

It is not many years ago since the whole consumption was imported, and could only be purchased at very exorbitant rates. The actual manufacture of electrical wire on a small and primitive scale was commenced in Japan in 1888, but made no headway until about 1903-4, when, in the commercial movement which followed the Russo-Japanese War, it received a considerable impetus and began to show promise of becoming a national industry of great and increasing importance.

The following statistics referring to the importation of insulating wire for a period of five years are illuminating:

| | |
|-----------|---------------|
| 1910..... | Yen 3,232,494 |
| 1911..... | " 4,076,533 |
| 1912..... | " 5,594,834 |
| 1913..... | " 2,062,519 |
| 1914..... | " 1,370,170 |

In the year 1912 the import will be seen to have reached its zenith, but note what was accomplished in two years following, for in 1914 the importation is seen to have fallen to no less than 25 per cent of that of 1912, a fact which becomes even more significant if we glance at the items which tell us that the telephone wires and submarine cables imported represented Yen 926,489, and metal-covered wires Yen 374,225 of the total. In other words, practically the whole sum represents the importation of what must be regarded as specialties. On the other hand, not only was the whole consumption of ordinary wire produced in the country, but the export figures for 1914 show that Japanese manufactured wire was exported abroad to the value of Yen 393,855. It is a somewhat difficult matter to obtain correct figures regarding the total output of wire in Japan, but manufacturers who may be regarded as authorities upon the matter

place the figure at well over Yen 20,000,000 annually.

The following facts supplied ample and sound reasons for the promotion of the Kyushu Electric Wire Manufacturing Co., in July, 1911, with a capital of Yen 250,000, and Messrs. Shigeo Fujinami, Shimpei Higasa, Tejiro Uyemura, Notoichi Akao, Tadasu Uchimura, Yoichiro Ikegaki, and two other gentlemen, the founders of the company, have since had cause for satisfaction in the soundness of their judgment.

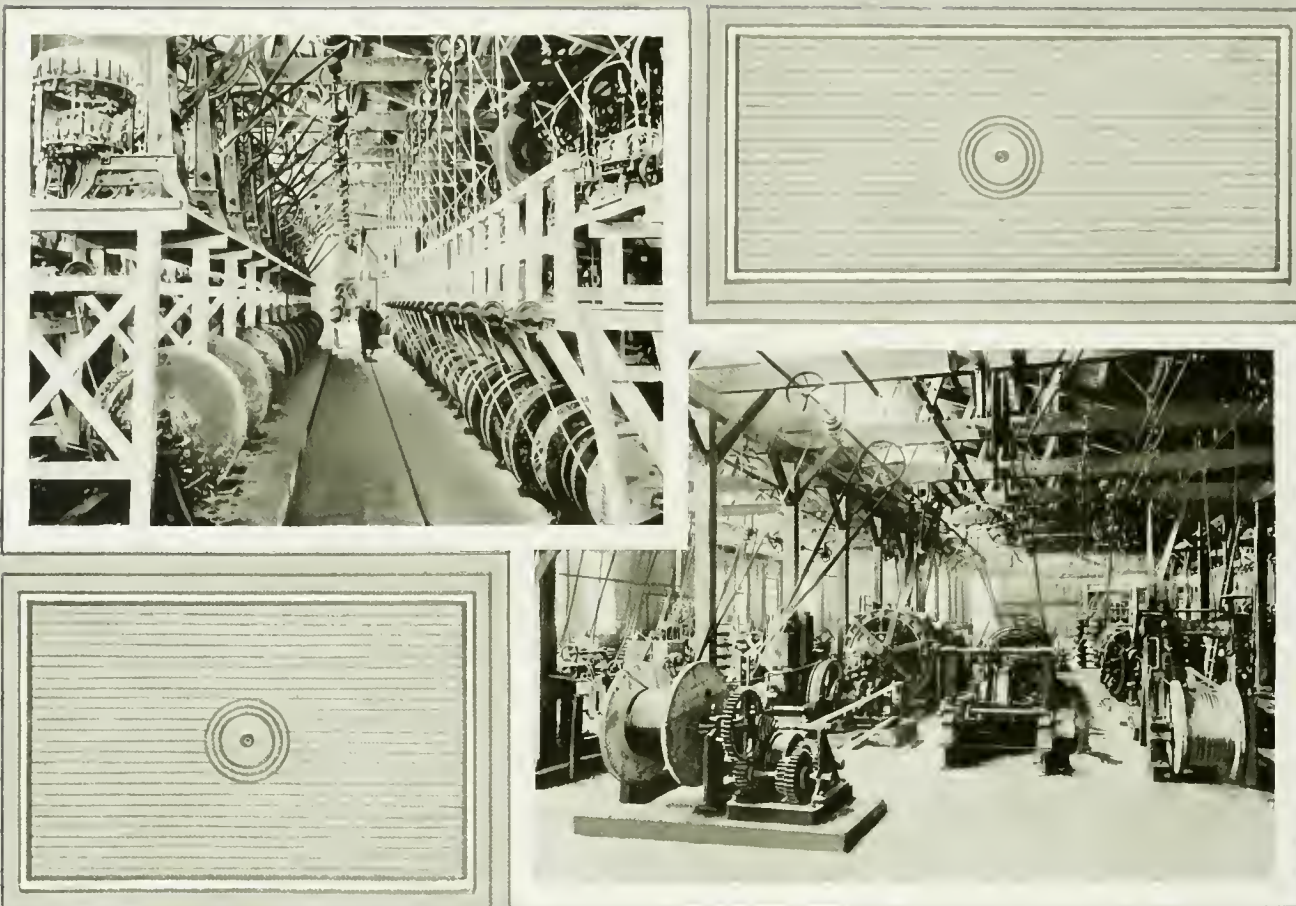
The first dividend was declared at 10 per cent per annum after the company had been one year in operation. The capital was later augmented to Yen 500,000, and various important additions made to the plant and buildings in order to keep pace with the demands. A 10 per cent dividend was maintained until the latter half of 1915, when it was increased to 15 per cent. One year later 25 per cent per annum was declared and has been maintained up to the present.

The factory is located at Dairi, within ten minutes by electric car of the port of Moji. The factory buildings are constructed of red brick, covering 2,240 *tsubo*. The installations comprise one 100 H. P. steam engine, one 200 H. P. steam boiler, one 200 H. P. motor, one 100 H. P. motor, and various smaller motors, the total force utilised being about 480 H. P. With regard to wire machines the factory is most up to date, the installations including a 42-inch triple roller, 18 inches diameter; 10-inch twine roller, 36 inches diameter; 36-inch twine roller, 12 inches diameter; 48-inch twine roller, 14 inches diameter; 28-inch twine roller, 12 inches diameter; electrical cranes, water pressure testing machinery, rubber covering, wrapping, and cutting machines, rubber drying ovens, etc.

There are 115 workmen and 125 girls employed, working under the supervision of a chief engineer and six assistant engineers, also there is an office staff of 23, including the Manager.

The recent movement in Japan towards the installation of waterworks and other sanitary arrangements, and the consequent demand for lead pipes, caused the company to increase its sphere of operation in this direction; hence, it is interesting to note that the factory is at present producing about 500 tons annually of lead pipe and about 3,000 tons of lead plate. The output of wire represents 24,000,000 feet of rubber insulated wire, 60,000,000 feet of cotton covered wire, 6,000,000 feet of code wire, 7,200,000 feet of lead covered wire; 7,200,000 feet of twisted wire of all kinds, and 6,000 feet of miscellaneous wire.

The officers of the company are Mr. Shigeo Fujinami, President; Mr. S. Hi-



VIEWS IN THE FACTORY OF THE JAPAN ELECTRIC WIRE AND CABLE CO., LTD.

gasa, Managing Director; Messrs. Teiji Inouye, Notoichi Akao, and Tadasu Uchi-mura, Directors.

THE JAPAN ELECTRIC WIRE & CABLE CO., LTD. (THE NIPPON DENSEN KAISHA, LTD.)

THE Japan Electric Wire & Cable Co., Ltd., was founded in 1908 and is one of the companies responsible for the surprising transition that has taken place in this item of trade. As stated elsewhere in this volume, the import of wire to Japan in 1912 represented Yen 5,594,834, a figure which in the next three years was not only entirely eliminated, but exportation initiated to the value of Yen 393,855 (1914). To the end of 1917 it is conservatively estimated that the wire exported represented considerably over Yen 20,000,000, and it may be added there is every indication that the figure will be greatly exceeded during 1918.

The works, as will be seen from the accompanying illustrations, are up to date in all respects. They are located in Mukojima,

Tokyo, and the following varied list of wires manufactured by the company will give a further indication of the extent and modernity of the plant installed: Bare wires and cables (copper, steel, and aluminum), rubber insulated wires and cables, lead covered wires and cables, weather proof wires and cables, armoured cables, cotton and silk braided flexible cords, enamel wires, electric bell, telephone, and telegraph wires and cables, etc.

It is the boast of the company that although for years past they have carried on a considerable and increasing export trade, filling many Government orders in connection with military and naval arsenals, railways and big power plants in China, Australia, the South Sea islands, North and South America, England, Russia, South Africa and elsewhere, they have up to date had no complaints, or claim of any description—surely an enviable record.

The present capital of the company is Yen 1,000,000, and the principal officers are Mr. S. Ishikawa, President; Managing Director,

Mr. O. Otsuki; other Directors, Messrs. I. Suzuki and T. Watanabe.

SHIMADZU SEISAKUSHO, LIMITED

JAPAN has rapidly come to the front as a country in which close scientific research is made, and it has also proved to be singularly well adapted for the manufacture of instruments, glassware, porcelain, and a score of different necessities of medical and chemical science. In the case of the Shimadzu Seisakusho, Ltd., the progress made of recent years is perhaps best displayed. This company is not only supplying a great portion of the requirements of Japan, in many lines, but is also exporting widely, its fame and reputation having spread to foreign countries.

The business was established in 1875 by Mr. Genzo Shimadzu, who is perhaps the pioneer of the industry of which he is to-day the acknowledged leader. For many years it was conducted as a partnership firm, but to-day the magnitude of the business is so great that it is controlled by a limited



SHIMADZU SEISAKUSHO, LIMITED: A PART OF THE STOCK OF CHEMICAL GLASSWARE — THE MACHINE SHOP AND FINISHING SHOP (BRASS WORKS)

liability company having a capital of Yen 2,000,000, Mr. Shimadzu being President. The company manufactures and sells physical and chemical instruments and apparatus, chemicals and re-agents, precision instruments for general measurements, storage batteries, accumulators, X-Ray apparatus and electrical instruments for medical purposes, electrical and other appliances, electric, gas, water and other devices. Furthermore, a large business is done in the preparation of specimens and models of natural history, pathological, and sanitary models, anatomical models, geographical and other specimens, and models, medical and chemical glassware and porcelain, etc., acid-resisting iron vessels, etc. In fact, there is hardly a line of such articles which is not handled by the company, and what can not be produced locally is imported. The output of the works of the Shimadzu Seisakusho, Ltd., is briskly exported to America, India, Australia, China, and Russia. There is a particularly strong demand for the chemical glassware of the "non-alkali" make, which is produced under a special process, and has

won a high reputation abroad. The various instruments are superior in quality and have a ready sale abroad. A steadily expanding demand is being experienced for the specimens of natural history and anatomical models made by the company. The acid-resisting iron wares, sold under the name of "Ariron," and the chemical porcelain which is made under the brand of "S. C. P.," have created the most favourable impression for their special qualities. The Shimadzu Seisakusho, Ltd., has the selling agency for the Japan Battery Co., Ltd., a sister company, and on that account handles the famous "G. S." battery, the initials being those of Mr. Genzo Shimadzu.

It may safely be said that the Shimadzu Seisakusho, Ltd., is a high-class manufacturing company which has done a great deal to develop the particular business in which it is engaged, and it is noteworthy that not only has the company received the highest awards for the excellence of its products, when displayed at various expositions, but Mr. Shimadzu himself has received the Symbol of Merit with Blue Ribbon, granted

under Imperial Rescript for the conspicuous services he has rendered to the industry, and to the manufacturing interests of Japan. The company over which he presides has won a high reputation, and anything with Mr. Shimadzu's name to it, commands the respect due to his successful record and close study. The head office of the Shimadzu Seisakusho, Ltd., is at Nijo, Kawaramachi, Kyoto, where the main works are established. There are branches at No. 18 Nishikicho, Itchome, Kanda, Tokyo; at Kitahama, Nichome, Higashi-ku, Osaka, and at Nishinakasu, Fukuoka, Kyushu. A department for specimens is also maintained at Kiyamachi, Kyoto.

The principal officers of the Shimadzu Seisakusho, Limited, are Mr. Genzo Shimadzu, President (also Managing Director of the Japan Battery Co., Ltd.); Mr. Genkichi Shimadzu, Managing Director; Mr. Tsunesaburo Shimadzu, Managing Director; Messrs. Zensuke Fujii, Seibei Naiki, and Jinyemon Matsumura, Directors; and Messrs. Katsutaro Inabata, Sukesaburo Kawasaki, and Kohei Inu are the Auditors.



GENERAL VIEW OF FIRST FACTORY OF NIPPON CEMENT CO., LTD.

CERAMICS

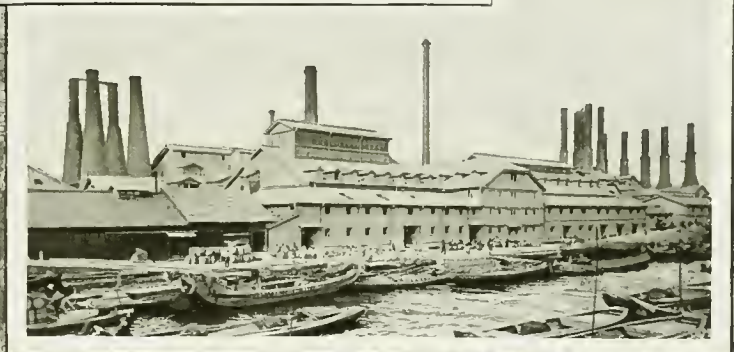
JUDGING from archaeological research, the making of pottery in Japan dates back, like the silk industry, to prehistoric times, the earliest examples, of course, being of rather a crude type. Japan's growing intimacy with Korea and China in the sixth, seventh, eighth, and ninth centuries led to the early introduction of finished ceramic art from these countries, many skilled potters being brought over from time to time. In the sixteenth century, Hideyoshi Taiko, who was a great lover and collector of the finest examples of Chinese porcelain, encouraged the manufacture of finer and more beautiful ceramic ware around Kyoto, the capital. Korean potters discovered fine clay at Arita, and from that time Arita ware became famous for its beautiful porcelain, as it still is. From there the art spread to Seto and Kutani, which wares are now admired and in demand the world over. Most of the Seto ware is of cheap quality. Nagoya has recently been turning out a very good hard porcelain for foreign export, as well as Gifu, but the latter is rather gaudy and fancied only by the more

uneducated classes abroad. For elegance and general artistic effect Kutani ware appeals to foreigners and Japanese alike, but in blues, the Arita ware is still unrivalled. In baking, wood is still largely used in Japan, but the old-fashioned method consumes about 20 per cent of the cost of production and is, therefore, a hindrance to the progress of the industry, as well as causing that lack of hardness so characteristic of much Japanese earthenware. Coal is, however, finding its way into gradual use, and with further utilisation of Western methods Japanese pottery will doubtless be cheaper and in a sense more durable, but will, perhaps, not so well deserve to last, as the use of printing for hand work in decoration does away with that exquisite touch

characteristic of the best Japanese porcelain. Porcelain forms the bulk of Japan's production, but faience, stone-china, and terra-cotta are finding increased output. In addition to the usual tableware, fancy pieces, kitchen ware, and toys, attention is also being given to making insulators, and sanitary and scientific appliances for medical and other apparatus. The total annual production of Japanese pottery is valued at about 17,000,000 yen, of which about 6,000,000 yen is exported, chiefly to the United States, South Africa, and Australia. The manufacture of bricks and tiles is now also a large industry, equal to about 12,000,000 yen annually.

The table given below will show the progress made since 1912.

| YEAR | POTTERIES | EXPORTS | ENAMEL WARE | EXPORTS | FIRE BRICK | ORDINARY BRICK | TILE |
|------|------------|-----------|-------------|---------|------------|----------------|------------|
| | Yen | Yen | Yen | Yen | Yen | Yen | Yen |
| 1912 | 16,544,000 | 6,637,000 | 247,000 | 86,000 | 1,551,000 | 4,900,000 | 11,751,000 |
| 1913 | 17,676,000 | 5,913,000 | 152,000 | 74,000 | 1,410,000 | 4,824,000 | 11,838,000 |
| 1914 | 15,656,000 | 6,952,000 | 134,000 | 31,000 | 1,015,000 | 4,196,000 | 9,940,000 |
| 1915 | 17,532,000 | 5,913,000 | 228,000 | 71,000 | 1,723,000 | 3,353,000 | 9,014,000 |



ASANO PORTLAND CEMENT COMPANY, LTD.: THE TAIWAN WORKS—THE HOKKAIDO WORKS—THE KAWASAKI WORKS—
THE MOJI WORKS—THE TOKYO WORKS

The cement industry has been suffering from over-production, the output equalling about 5,000,000 barrels, with a home demand of 2,800,000 and exports naturally increasing.

THE NIPPON CEMENT CO., LIMITED

THE Nippon Cement Kabushiki Kaisha was established in 1885, when the manufacture of Portland cement was inaugurated at a small factory at Tomigawacho, Fukagawa-ku, though the business was not converted to a joint-stock company till 1888. To-day this concern is the largest of its kind in Japan and has won an international reputation for the quality of its products, the highest testimonials having been received from directors of government enterprises, private construction companies, and general contractors. With the organisation of the company in 1888 a new factory was started at Gohonmatsu, and the capacity of the concern was thereby largely augmented. At this time there was a great demand for Portland cement consequent on the extension of public works and other enterprises, and the Nippon Cement Company launched a plan for the extension of its business in all directions. A suitable site was obtained for a new factory at Yatsushiro-machi, Higo Province in Kyushu, and with the completion and setting in operation of these works the company became the pioneer of cement manufacture in Kyushu, which has since become the centre of the Portland cement industry in Japan. The factory was completed in 1890. It has a most advantageous position at the mouth of the River Kuma, commanding convenient means of transportation on land and water, and in its neighbourhood lies the district noted for the production of raw materials for the manufacture of cement, and fuel of excellent quality. Between 1896 and 1914 the Nippon Cement Company carried out further extension and reconstruction of its factories and introduced machinery of the latest make, acknowledged by the cement manufacturers of the world as the best. Throughout its career the Nippon Cement Company has always been abreast of the times in its methods of manufacture and handling of its products, and it now enjoys the reputation of being the manufacturer of the best domestic cement, and of A-1 quality compared with all other brands, local or imported. Besides commanding a large portion of the trade throughout Japan and Taiwan (Formosa), the company has developed a big export business with Manchuria, Russia, China, the South Sea Islands, British India, the Dutch Indies, French Indo-China, the Philippines, and Australia. To meet the fast-increasing demand in various directions the company has decided on further extension to its



STEPS AT MAYASAN, NEAR KOBÉ

factories and plant. The products have been subjected to the most severe tests, not alone in Japan, but abroad, and on every occasion have emerged successful and up to the highest known standards of excellence. Testimonials have been received from almost every Government department, and from numerous big contracting and construction concerns.

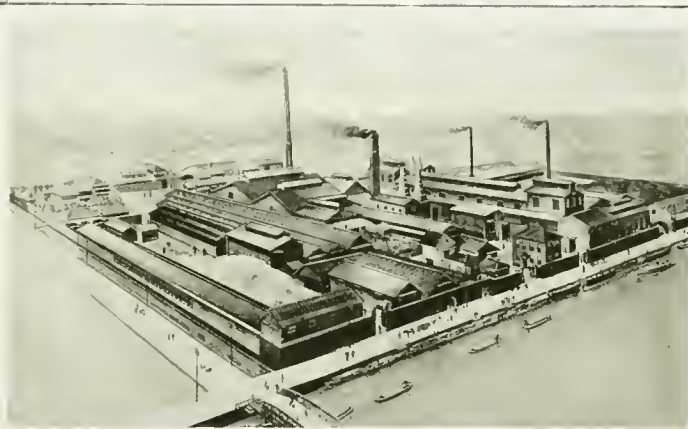
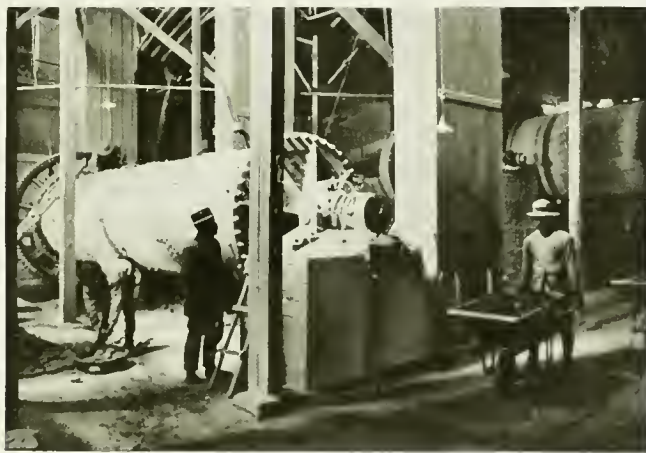
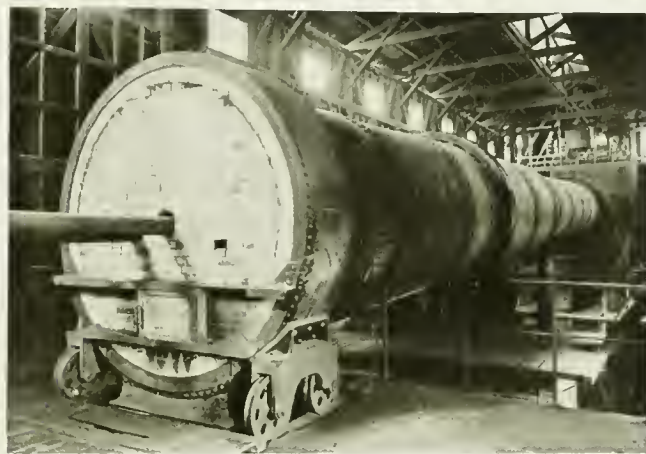
It is not surprising, therefore, to learn that the Nippon Cement Company numbers practically every well known enterprise among its customers. The share capital of the Nippon Cement Kabushiki Kaisha is Yen 2,500,000. Its annual output is 1,000,000 barrels. The head office of this important industrial company is at Nishiimagawacho, Kanda, Tokyo, with a branch office at Yatsushiro, Yatsushiro-gun, Kumamoto-ken. Sub-branches are maintained at Osaka and Seoul. The first factory is at Yatsushiro, the second factory at Okawa.

ASANO PORTLAND CEMENT CO., LIMITED

THE Asano Portland Cement Company, Ltd., is one of the several highly important Japanese enterprises controlled by Mr. Soichiro Asano, perhaps the most active and interesting figure in the history of Japan's industrial development, with whose name is associated such great undertakings as the Toyo Kisen Kaisha and the Asano Ship-building Company. To give the history of the company is to write the story of the development of the cement industry in Japan, because the Asano Company is the oldest Portland cement manufacturing concern in the Empire.

The industry was actually founded by the Japanese Government in 1871, when what is now the Asano factory was started in Tokyo, and was maintained as a State enterprise for some years. In 1883 Mr. Soichiro Asano, who is one of the pioneers of the industrial independence of Japan, took over the factory from the Government, he having recognised the necessity, from the point of view of national economy, of the manufacture of cement, and he set himself the task of improving the methods of manufacture, and of widely developing the industry. The very latest methods were adopted in the Asano factory and experts were sent abroad to study the processes in different countries. The result of this initial work was such that by 1892 the factory was producing a far larger quantity than ever before and the popularity of the home-made article was so pronounced, both locally and abroad, that in order to meet the rapidly increasing demand for the Asano product branch works were established at Moji.

In 1898 the Asano factory was converted into the Asano Cement Company, a partnership concern, in order that the operations might be further extended. This partnership was reorganised into a joint-stock company in 1913, and Mr. Taijiro Asano, one of the directors of the new concern, was, for the fourth time, sent to Europe and America, accompanied by a staff of experts, to investigate the industry in those countries. In the year 1914 the capital was increased to Yen 7,000,000 in order to build the works at Kawasaki, and this move, following on the erection of a factory in Taiwan, gave the company a commanding position in the cement business. A further development took place in 1915, when the ever-increasing demand for the company's products, and the general prosperity of the big concern, led to the amalgamation of the Hokkaido Cement Works with the Asano Portland Cement Company, the former works being continued as a branch of the main company, after being remodelled and improved to permit of them turning out a larger quantity and better quality of cement than before. The general activity in the whole economic condition of Japan, consequent upon an era of great prosperity, finally led to a further capitalisation in 1917, when the capital was fixed at Yen 15,000,000. This increase has enabled the company to undertake the enlargement and remodelling of its five works, and has also given it a reserve of working capital with which to exploit the market in all directions. To-day the Asano Portland Cement Co., Ltd., is in a highly flourishing condition, and the success achieved by Mr. Asano in his forty years of hard work and enterprise is recog-



SUZUKI CEMENT COMPANY: INTERIOR VIEW, SHOWING PART OF THE PLANT—ROTARY KILNS—GENERAL VIEW OF THE FACTORY



THE SHINAGAWA FIRE BRICK COMPANY, LTD.: GENERAL VIEWS OF THE TOKYO AND OSAKA WORKS

nised and appreciated by all who understand what it means to Japan.

The Asano Portland Cement is made from the best of raw materials, and the consensus of opinion in the trade is that it is of excellent quality and liberally exceeds all standard specifications. Its reputation is well established and it is known as one of the highest grades of Portland cement ever put on the market, its quality being superior, though its price is no higher than those of ordinary cements.

As stated above, the company has five large works, the head office and No. 1 factory being at Fukagawa, Tokyo. The branch offices and works are as follows: Shirakizaki, Moji; Kamiiso, Toshima, Hokkaido; Takao, Formosa (Taiwan); Kawasaki, Kanagawa Ken. Sub-branch offices are maintained at Satumabori, Osaka; Asahimachi, Niigata; Taihoku, Formosa; Seoul, Korea; and Kiimachi, Dairen. The works of the company are most modern in their construction, and the machinery is of the latest pattern, constantly being improved, to enable the company to manufacture under the most economic and practical systems. Skilled engineers and analysts are in charge, and the marketing of the products is in the hands of business experts whose experience of the trade in all its branches is admitted to be second to none. It is almost unnecessary to say that such an enterprise has received the fullest endorsement from the Government and the big constructing and engineering concerns in Japan. The Asano brand of cement is used by the Army, Navy, and Railway Departments, and the various harbour and water works, it being specially recommended by engineers for sea water constructions. The cement is used largely throughout the entire East and is also exported to the Philippines, India, Australia and elsewhere. It may be interesting to those in the trade to read the following results of tests made of Asano Portland Cement:

No. 1. *Fineness*: Residue on a sieve of 5,776 meshes per square inch, 0.5 per cent; residue on a sieve of 32,400 meshes per square inch, 13.0 per cent.

No. 2. *Time of setting*: Initial setting, not less than one hour; final setting, not more than ten hours.

No. 3. *Expansion of neat cement*: By the Le Chatelier apparatus, 3 mm.

No. 4. *Soundness*: Normal, boiling, tests, etc., no sign of cracking, crumbling, or warping.

No. 5. *Specific gravity*: 3.12.

No. 6. *Tensile strength*: Neat briquettes, 700 pounds per square inch (7 days); 800 pounds per square inch (28 days). Sand

briquettes (1C.+3S.), 270 pounds per square inch (7 days); 350 pounds per square inch (28 days).

CHEMICAL ANALYSIS

| | Per cent |
|--------------------------|----------|
| Loss on ignition..... | 1.50 |
| Insoluble residue..... | 0.20 |
| Silica..... | 22.20 |
| Alumina..... | 7.00 |
| Ferric Oxide..... | 3.50 |
| Lime..... | 62.50 |
| Magnesia..... | 1.00 |
| Sulphuric anhydride..... | 1.20 |

The annual output of the various works of the Asano Portland Cement Co., Ltd., is over 6,700,000 barrels. The worthy founder of this great enterprise is still actively at the head of the concern as President, and the General Manager is Mr. Taijiro Asano. The staff comprises some of the best business and manufacturing men in Japan, and as may be gathered from the foregoing description of the enterprise, the activities of the Asano Portland Cement Co., Ltd., furnish employment for an enormous number of hands. It is truly an undertaking of first rate national importance.

SUZUKI CEMENT COMPANY

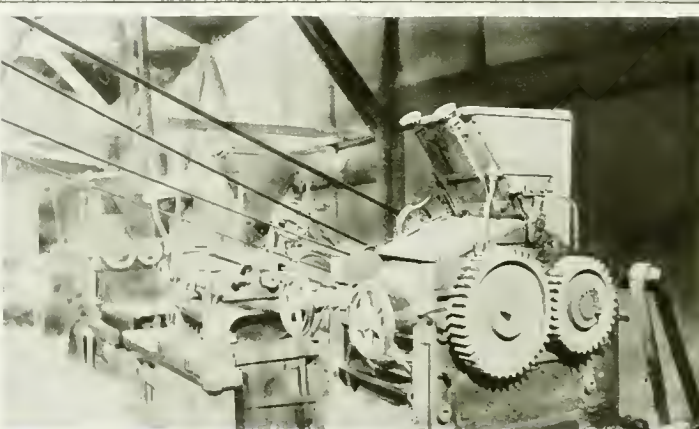
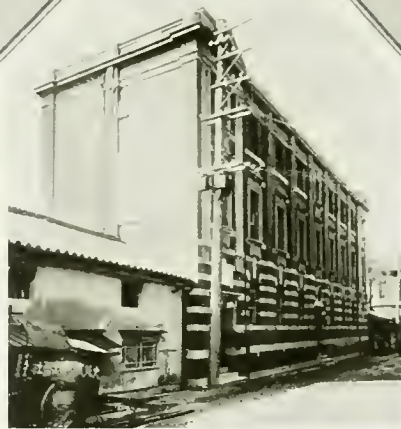
THE Messrs. Suzuki Brothers have been in the Portland Cement manufacturing industry since 1890, and are well known throughout Japan for the important part they have played in the development of the trade. Their works at Saruyecho, Fukagawa-ku, in the outskirts of Tokyo, are among the largest and best equipped in the country, and the output of the plant ranks very high in the estimation of engineers and contractors. The business was founded by Mr. Sahei Suzuki in 1890, when he bought the Saruyecho factory from the Nippon Cement Co., Ltd. This factory had been established some time before Mr. Suzuki acquired it, but it was not very successful until he made it his individual undertaking and developed its plant and output along modern lines. For some years Mr. Suzuki conducted the factory as a private concern, but in 1904 the business was transformed into a joint-name company, under which it is at present run. The company went in for extensive improvements and wider development, the machinery being brought up to date in all respects. A complete reorganisation took place during 1915-1916 when the company established the rotary kiln system to meet the requirements of the time, and changed the entire plant and machinery in accordance with the latest ideas. The Suzuki Cement Company now has an annual production of 200,000 barrels of cement, but with an enlargement of the

plant, which is under contemplation, it is hoped to increase the annual output to 500,000 barrels.

The factory at Saruyecho produces Portland Cement by the most approved methods, employing such plant as the rotary kiln, a clinker cooler, three crushers, four edge-runners, three ring roll mills, two vertical bore mills, seven tube mill, a Kent mill and four air-selectors, besides three New Ago sieves and clay and coal dryers. In addition to the cement factory, the company has a plant for barrel-making, situated at Higashi, Ogibashi-machi, Fukagawa-ku. The area covered by the factories, godowns, etc., is 4,557 *tsubo*, and the buildings are all of modern construction, consisting of steel frame, brick, and wood, the main factory being a three-story structure. The partners in the company are: Messrs. Mosuke Suzuki, Kozo Suzuki, Keizo Suzuki, Yasuo Suzuki, and Seiemon Ayabe. Mr. Mosuke Suzuki is the President and Messrs. Kozo and Keizo Suzuki are the Managing Directors, while Mr. Yoshii, Chief Engineer to the company, conducts the whole process of manufacture. The company's product is consumed in Japan, and is in strong demand for public works, for reinforced concrete specialties, and for general engineering purposes.

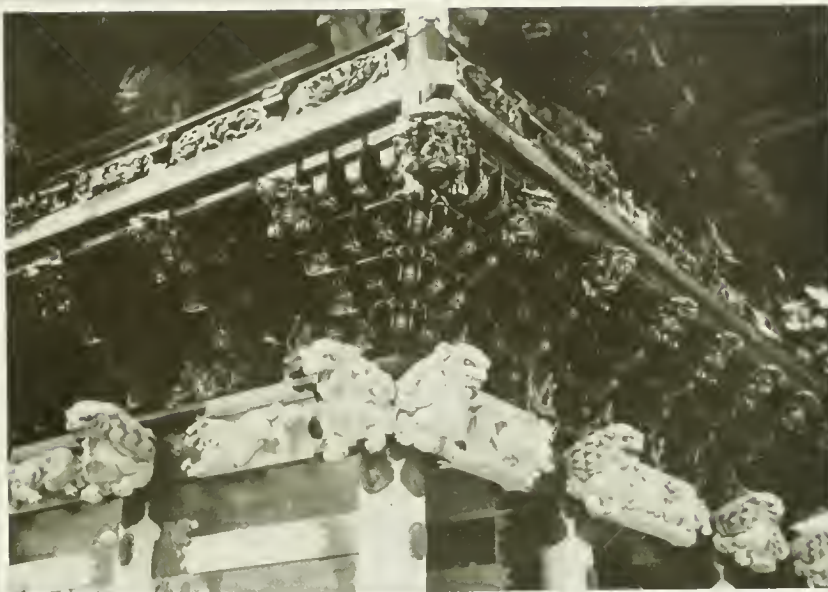
THE SHINAGAWA FIRE BRICK CO., LIMITED

THE manufacture of fire bricks is an ancient industry in Japan, naturally arising out of the many arts and crafts which are dependent upon kilns for their completion, as, for instance, in the case of porcelain and pottery. But the credit for the introduction of the industry on a large scale, and for purely commercial purposes belongs to the Shinagawa Fire Brick Co., Ltd. It was in 1875 that Mr. Katsuo Nishimura founded the business, and he had with him at that time Mr. Masayoshi Yamanouchi, who is to-day Managing Director of the Shinagawa Fire Brick Co., Ltd. These two gentlemen may be said to be among the pioneers of what has now become an enormous industry. For many years Mr. Nishimura carried on his works as a private concern, always adopting new ideas and modernising his plant as necessity required. Naturally the development of other industries, and the general expansion of Japan's manufactures, offered every advantage to the concern, but nevertheless the founders of the business did not find conditions easy, and it was their energy and determination that made them so successful. Mr. Nishimura's private interests were taken over by a company in June, 1900, and three years later the concern was made a limited



OSAKA BRICK AND CEMENT COMPANY, LIMITED: HEAD OFFICE—KISHIWADA FACTORY—GENERAL VIEW OF OHAMA WORKS, SAKAI CITY—
INTERIOR VIEW OF GRAPHITE CRUCIBLE WORKS AT SHIJO, KYOTO

liability company with a capital of Yen 2,000,000. Since that time the company has been conspicuously successful, and its development has been rapid. From its start in a small way, the business has grown to such an extent that no fewer than seven factories are now engaged under the company's direction in the manufacture of all kinds of bricks. The head office and works of the company are at Kitashinagawa, Ebara-gori, Tokyo Prefecture. The following are the branches and works: Osaka Works, Kizumishima-machi, Minami-ku, Osaka; Inbe Works, Inbe-machi, Wakegun, Okayama Prefecture; Yumoto Works, Yumoto-mura, Ishikigun, Fukushima Prefecture; Taira No. 1 Works, and Taira No. 2 Works, Tairamachi, Ishikigun, Fukushima Prefecture, and Akai Works, Akai-mura, Ishikigun, Fukushima Prefecture. These works are all modern in every sense. The buildings are of stone or wood, and the plant is up to date, efficient, and economical. Bricks are made from the best materials and are produced in direct burning round kilns, square kilns, and gas kilns. In this connection it may be said that Japan has a plentiful supply of the right kinds of fire bricks for all purposes, and the product of the Shinagawa Fire Brick Co., Ltd., is very highly regarded by all experts. The company's works produce about 50,000,000 bricks of different kinds per annum, and employment is given to 2,500 hands. In recent years the demand for fire bricks has greatly increased, and not only is the Shinagawa Fire Brick Co., Ltd., patronised locally by the copper, iron, zinc, and steel works, gas works and all kinds of chemical and electrical works and general manufacturers, but their foreign markets, in the past two or three years, have been greatly extended in China, Southern Islands, India, and Australia. The company is continually in receipt of large orders from abroad, which shows how substantial the enterprise is, and that the praise bestowed on the product as being matchless in the Orient in name and fact, is well founded. Mr. Yamanouchi, Managing Director of this important concern, has had over forty years' experience. A few years after joining Mr. Nishimura he was appointed Manager of the original works, and his service with the company has been devoted to improving the factories, keeping the plant up to date, and developing sources of the very best material. Mr. Yamanouchi's service to this important branch of Japanese industry has been recognised all over Japan, and on September 28, 1911, he was rewarded by the Government for his long service and skilful management of the industry he controls. The



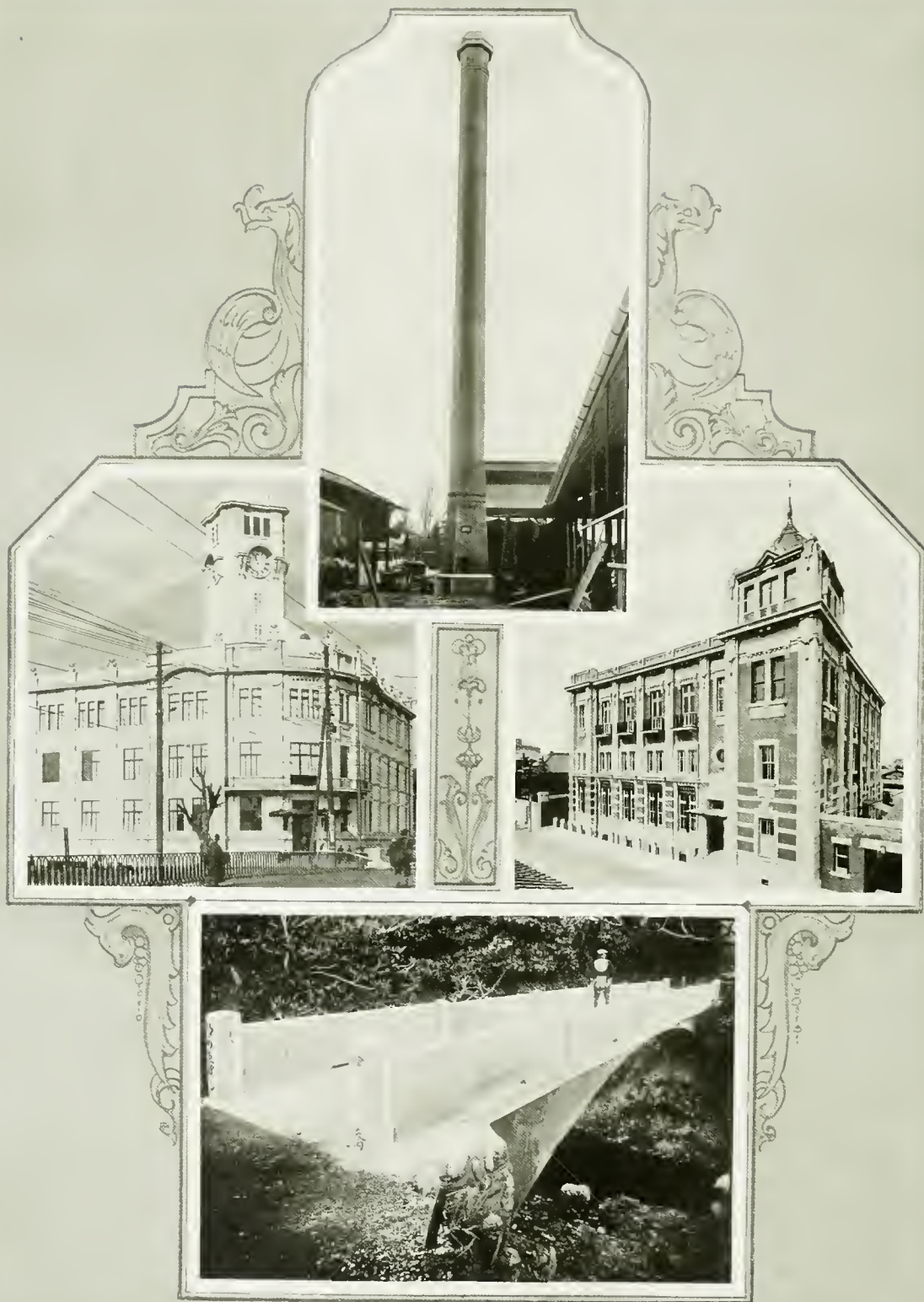
DETAIL OF CARVING ON A TEMPLE

principal officers of the Shinagawa Fire Brick Company, Ltd., are: Managing Director, Mr. M. M. Yamanouchi; Directors, Messrs. Y. Fujimura, C. Yasojima, N. Nishimura, E. Toyoshima, and T. Matsui; Auditors, Messrs. S. Urushi and R. Takamatsu.

THE OSAKA BRICK AND CEMENT CO., LIMITED

THE history of industrial undertakings in Japan is not only remarkably interesting, but it is full of surprises to the student of the country's phenomenal development. In the case of the Osaka Yogyo Kabushiki Kaisha, or Osaka Brick and Cement Co., Ltd., one finds not only that a small concern, started originally to make acid bottles, has increased its capital seven hundred fold, and has gone in for the manufacture of all classes of articles that might be expected to fall within the sphere of its activities, but it is also engaged in cement manufacture and ship-building on a large scale. In January, 1882, this concern was known as the Sulphuric Acid Bottle Co., the purpose for which it was originally formed being to make earthenware vessels, more or less on the old lines of manufacture. The capital then was Yen 10,000. The change in the name took place in 1887, when the capital was increased to Yen 40,000, and the manufacture of bricks was the only activity. From that date, however, the company has never looked back. Factory after factory was established as regular increases in the capital took place. In the one year from February, 1906, to February, 1907, the capital was raised from Yen 180,000

to Yen 860,000 and soon to Yen 1,000,000, finally reaching Yen 7,000,000 in 1917, an increase of seven hundred times the original amount. Throughout this period the range of operations of the company also extended. It is to-day producing one-fourth of the total number of common red bricks manufactured in Japan, and has an output of 140,000,000 bricks per annum. The kilns operated by this company are of their own device and have been patented. The bricks are produced entirely by machinery under a process which, it is claimed, renders them less absorbent of water, and far more durable than other bricks. A great advantage enjoyed by this company in the conduct of its factories is that each is adjacent to a port or a railway and, therefore, the cost of transportation on raw material and the finished products is reduced. Brick-making is only one of the activities of this enterprising company. In the Okajima factory, cement making is being carried on, and when the plant is enlarged as planned the works will have an annual output of 700,000 barrels. Crucibles are also being made at the Shichijo and Mukomachi works, and when the purchase of the Kyoto Graphite Crucible Co., Ltd., is effected as arranged, the company anticipates a production of 1,300,000 sets a month, and expects to supply a large portion of the requirements of the Imperial Army and Navy, as well as to carry on a large export trade. Furthermore, the company makes fire bricks (8,000,000 pieces per annum), all classes of house tiles (7,000,000 pieces per annum), and various other lines associated with earthenware products, such as terra cotta.



SAKURA CEMENT CO., LTD.: LARGE REINFORCED CONCRETE CHIMNEY OF SUITA BREWERY — OFFICES OF THE "OSAKA ASAHI SHIMBUN" —
 PREMISES OF THE ORIENTAL SPINNING CO., LTD., OSAKA — BRIDGE IN MINOMO PARK.
 ALL CONSTRUCTED WITH SAKURA CEMENT

To carry on its operations the company already owns several ships, and it is now laying down berths in the Kizugawa factory to construct steamers of considerable freight capacity. Three berths are already under construction and it is expected to turn out from this one yard about 20,000 tons of ships before the end of 1918, the vessels designed being of about 2,000 tons. When that programme is completed this company will lay down berths for ships up to 8,000 tons' capacity each. Such a scheme, it may safely be said, has never yet been carried out by any other concern in this line of business, but as the company is already a large designer of engineering projects, and a contractor for civil engineering, its plans for a big future as a ship-builder should certainly prove successful. For the first half of 1917 the Osaka Brick and Cement Co., Ltd., realised a net profit of Yen 1,072,789. From this sum Yen 600,000 was set aside as a special fund to carry out contemplated extensions; Yen 292,500 was paid in dividends, representing 30 per cent per annum, a bonus of Yen 100,000 was paid to the staff and workmen in commemoration of the 35th anniversary of the company, and other amounts were distributed, leaving Yen 20,916 to be carried forward. The head office of the company is at Dojima, Kita-ku, Osaka, and there are 11 factories or works. The ground owned and occupied by the company is 228,404 *tsubo*, and the factory buildings cover an area of 20,609 *tsubo*. The principal officers of the company are: Directors, Messrs. R. Isono (President), K. Hirooka, S. Otaka, J. Tabata, and T. Hiyoshi. The Auditors are Messrs. T. Nagao, T. Naka, and C. Tsuji. It is confidently expected by the Directors that when the new works planned are in full operation the profits will be for each half-year, as follows: From cement-making, Yen 700,000; from crucibles, Yen 161,000; and from shipbuilding, Yen 1,700,000, these figures being in addition to the profits accruing from brick-making and other activities.

SAKURA CEMENT CO., LIMITED

THE manufacture of Portland cement has become a very important industry in Japan. There are a number of large companies producing an excellent quality of cement, and not only is the local demand entirely supplied, but a valuable export trade with foreign countries is being done. Occupying a prominent position among the cement manufacturing concerns is the Sakura Cement Co., Ltd. In many respects this company is far ahead of the others, particularly in its splendid modern equipment of labour-saving appliances.

The Sakura Cement Co., Ltd., was established in April, 1907, and a year later its first

factory was opened at the Osaka Constructed Harbour, formerly known as Blockard Harbour. The manufacture and sale of cement for the local market proved an immediate success, which is not surprising considering the rapid development of Osaka, and in May, 1913, the company opened its export department, from which time the real prosperity of the enterprise must be dated. A vigorous policy of expansion and improvement was entered upon. The most modern type of rotary kiln, aero-pulverizer, self-recording electrical pyrometer and similar plant was installed, and by June, 1914, the first factory had been entirely reorganised and improved, the new plant being put in ahead of any other cement factory in the country. The company then established other factories, and in No. 2 factory the rotary kiln, 125 feet by 10 feet in diameter, is said to be the largest of its kind in Japan. There are other mechanical appliances, such as the aero-pulverizer and self-recording pyrometer, which are not to be found in any other cement works. In May, 1916, a big limestone field was purchased at Toku-ura, Oita Prefecture. This field is over 140,000 *tsubo* in extent, where the lime has been exposed. With such a valuable source of raw material, the Sakura Cement Company lost no time in establishing a second factory, right on the spot, and equipped it in a manner by no means inferior to the equipment at No. 1 factory. The company's own patented raw material crusher, and manufactured cement crusher were installed, together with the huge rotary kiln referred to above. Both factories are most advantageously located for effective and economical production of cement, No. 1 being so close to the harbour permits of easy transportation for incoming raw materials, and enables the export operations of the company to be carried on readily, while No. 2, being in the centre of a great lime-producing field, and also adjacent to the port of Moji, also makes transportation and production very cheap. The factories have an area respectively of 15,587 *tsubo* and 5,000 *tsubo*. Electricity and steam are employed at No. 1 factory, and electricity at No. 2.

The limestone and clay used are produced in Iyo, Kii, Harima, Kwaji, and Bungo provinces. The company's method of manufacture is to crush the clay and limestone in stipulated quantities, pulverizing it in a Kent mill, and then sending it on to a tube mill where it is reduced to very fine powder. The mixture is then treated in the rotary kilns. Each factory is complete with all modern machinery, and No. 2 factory has an aerial tramway for the conveyance of raw material, etc. Physical and chemical laboratories are established at each factory for testing the

cement and for other purposes incidental to the manufacture of a high-grade product of uniform quality. Specialities in the Sakura Cement Company's system of manufacture are the use of a variable speed electric motor for the operation of revolving the kilns; the use of the aero-pulverizer for crushing the limestone into powder as the process of manufacture proceeds, thus obviating the necessity for storing powdered limestone and preventing the danger of fire arising from such a source, and the use of the radiating pyrometer which permits of burning the mixture at a definite degree of heat, thus rendering the product uniform throughout. Further guarantees of the even quality of the company's product are the tests which are continually being made in the laboratories, and which result in the maintenance of a high standard which has won for the Sakura Cement the highest reputation at home and abroad. Among the awards won by the Sakura Cement Co., Ltd., are the following: Silver medal at the Third Domestic Products Exhibition, May, 1911; silver medal at the Japan Furnace Products Exhibition, September, 1911; silver medal at the Osaka Trades Exhibition in 1916, and various other silver and bronze medals.

The company employs a technical staff of 60, and about 260 workmen, the two factories having a combined output at present of 450,000 casks per annum. Sakura Cement has been used by the following enterprises or companies: Imperial Theatre, Tokyo, Osaka *Asahi Shimbun*, Mitsubishi Co. (Osaka branch building), Sumitomo head office, Kawasaki Bank (Kobé), Osaka Electric Light Co. (Head office building), Toyo Spinning Co., Ltd., Kyoto Electric Light Co., and many others. The Sakura Cement is sold all over Japan and is largely exported to British India, the Straits Settlements, the Dutch Indies, the Philippines, Australia, French India, Siam, China, South Africa, Manchuria and elsewhere. The head office of the Sakura Cement Co., Ltd., is at Constructed Harbour, Nishiku, Osaka, and there are branch business offices at No. 3 Funadaikumachi, Dojima, Kitaku, Osaka, and at No. 6 Honzaimokucho, Nichome, Nihonbashi-ku, Tokyo.

The company has a capital of Yen 800,000, with reserves of Yen 59,300. The President is Mr. T. Hiraga. Other Directors are Mr. M. Sakamoto (Managing Director) and Dr. K. Watanabe. The Auditors are Messrs. K. Hiro-Oka and K. Kakuma.

IWAKI CEMENT KABUSHIKI KAISHA (THE IWAKI CEMENT CO., LTD.)

OWING to the boom in the Japanese market as a consequence of the European war, the cement manufacturing industry has also



CAPTAINS OF INDUSTRY

(1) W. H. KENDRICK, Manager, Lycett Saddle Co.—(2) C. AMANO, President, Japan Musical Instrument Manufacturing Co.—(3) K. HARA, President, Takasago Life Insurance Co., Ltd.; President, Takasago Industry Co., Ltd., and President, Nippon Yusi K. K.—(4) TADAHIRO TASAKI, Partner, Mitatsuchi Rubber Manufacturing Co.—(5) NAGAKUNI TASAKI, Partner, Mitatsuchi Rubber Manufacturing Co.—(6) HIDETATSU TSUCHIYA, Partner, Mitatsuchi Rubber Manufacturing Co.—(7) The Late TADAATSU TASAKI, One of the Founders of the Mitatsuchi Rubber Manufacturing Co.—(8) TAKUMA ITO, Managing Director, Japan Hide and Leather Co., Ltd.—(9) TAJIRO ASANO, Director and General Manager, Asano Portland Cement Co., Ltd.—(10) KINTARO HATTORI, Proprietor, K. Hattori & Co., Tokyo, and President, Seikosha Watch and Clock Manufacturing Co., Tokyo—(11) G. MATSUKATA, President, Tokyo Gas and Electric Industry Co.—(12) T. OTANI, Managing Director, Tokyo Itagami Kaisha, Ltd.—(13) N. HASEGAWA, Managing Director, Takasago Industry Co., Ltd.—(14) M. YAMADA, President, Tokyo Rope Manufacturing Co., Ltd.—(15) K. MAKOSHI, President, Denki Kagaku Kogyo Kaisha, Ltd., and Dai Nippon Brewery Co., Ltd.—(16) T. NOMURA, Managing Director, Oriental Timber Creosoting Co., Ltd.—(17) T. SHODA, Managing Director, Nisshin Seifun K. K.—(18) G. YONEI, President, K. K. Meidi-ya—(19) S. OSAWA, President and Managing Director, Japan Shoe and Boot Manufacturing Co.—(20) T. YAZAWA, Proprietor, T. Yazawa & Co.—(21) T. YAZAWA, Proprietor, T. Yazawa & Co.—(22) CLIFFORD WILKINSON, Managing Director, The Clifford-Wilkinson Tansan Mineral Water Co., Ltd.

shown an unprecedented activity within the past year or so. The Iwaki Cement Co. is one of the two, among many corporations connected with the industry, which have made most progress, especially in the eastern and northeastern districts of Japan.

The Iwaki Cement Co., Ltd., was established in November, 1907, and is comparatively of new birth from the viewpoint of the cement industry in Japan. It was organized at the time when there took place a fundamental reform in the method of cement manufacture in Japan. The company installed the machines most up-to-date in Europe and America, and the two kilns now in use are of the revolving system, "rotary kilns," one being 100 feet in length and the other 125 feet.

Under the most systematic and scientific method, the quality of the product is remarkably excellent and uniform. Moreover, the increase in efficiency of work, as well as the shortening of the process of labour, has resulted in a considerable decrease in the cost of production. The foundation of the institution is getting more and more stable, because of the rare capability of the management. In these circumstances, even in the time of depression in the cement industry (1913-14), the company did not fail in adding an appropriate amount to the reserve fund or in paying dividends. The total sum of the profit for the fiscal term ended June 30, 1917, amounted to 50 per cent of the paid-up capital, a fact which could not be found in the record of any similar undertaking.

Since the revolving kiln was first introduced by Mr. Ransom, the inventor, in England in

1885, an improved machine for use in manufacturing cement has been introduced in the United States, where it has been in practical use. And it must be noted that though at present almost all the cement manufacturers in Japan are profiting by the use of this epoch-making machine, it was, in fact, the Iwaki Cement Co. which first adopted it in Japan and succeeded in its practical use.

In describing the process of industry of the company in detail, the first thing done is to crush the limestone, the raw material for the

manufacture of cement, with a crusher; then it is made into powder by means of a "comminutor." The clay is crushed with a rotary crusher before it is dried with a revolving desiccator. After the clay is thus dried, and made into powder by means of an emery mill, it is mixed up with an automatic steelyard; then it is reduced to finer powder with a tube mill, and this powder is poured into a rotary kiln installed with a gentle gradient from the top.

From the bottom of the rotary kiln pure



VIEWS OF THE FACTORY OF THE IWAKI CEMENT CO., LTD.

| TERM | PAID-UP CAPITAL | PROFIT | PERCENTAGE |
|--------------------------|--------------------|---------|------------|
| | Yen | Yen | |
| 2nd half-year, 1915..... | 646,000 | 54,530 | 16.9 |
| 1st half-year, 1916..... | 646,000 | 93,751 | 29.0 |
| 2nd half-year, 1916..... | 646,000 | 203,230 | 63.1 |
| 1st half-year, 1917..... | 850,000 | 211,163 | 49.7 |

coal, which is first crushed with a roll-jaw crusher and then made into powder by means of a Griffin mill, a Fuller mill, and a selector, is blown into the kiln with an electric blower. The limestone and clay on the upper part of the kiln gradually fall down through the tube. When they reach the bottom they are melted and the liquid is conveyed into a cooling machine, where it is made into clinker. The

DISPOSAL OF PROFIT

| TERM | AMOUNT BROUGHT OVER FROM PRECEDING HALF-YEAR AND PROFIT | REDEMPTION | RESERVE FUND | BONUS | DIVIDENDS | RATE | AMOUNT CARRIED FORWARD TO NEXT HALF-YEAR |
|--------------------------|---|------------|-----------------|--------|-----------|----------|--|
| | Yen | Yen | Yen | Yen | Yen | Per cent | Yen |
| 2nd half-year, 1915..... | 69,754 | 10,000 | 7,500 | 4,000 | 25,840 | .08 | 22,414 |
| 1st half-year, 1916..... | 116,166 | 20,000 | 20,000 | 7,000 | 32,300 | .10 | 36,866 |
| 2nd half-year, 1916..... | 240,097 | 50,000 | 28,000 | 12,000 | 58,140 | .18 | 91,957 |
| 1st half-year, 1917..... | 303,121 | 50,000 | 28,500 | 12,000 | 85,000 | .20 | 127,621 |



TENJINBASHI BRIDGE, FROM SHIN-NANIWA-BASHI BRIDGE, OSAKA

clinker is again reduced to powder with a comminutor, tube mill, Fuller mill, and a selector, and finally this powder is packed into barrels.

The company's factory is situated in front of the Yotsukura Station on the Joban Railway Line in the northeastern part of Japan. The capital is at present 850,000 yen, and the company employs 600 workers. The daily output is 1,000 barrels, totalling over 350,000 barrels per annum. Limestone, the principal raw material, is transported from the Yakuki copper mine, six miles away, and clay from the neighbourhood of the factory, both by means of the Tamamura aerial cable and a light railway. As the factory is located near the Iwaki coal-pits, the supply of coal is very convenient.

The quality of the cement produced from the factory is far superior to what is prescribed by the Department of Agriculture and Commerce, so that it is enjoying a high reputation among consumers. The headquarters of the business is at No. 23 Yamashita-cho, Kyobashi-ku, Tokyo, where Mr. K. Omiya, one of the Directors, manages the business, while the works is under the management of Mr. M. Okada. There is also a branch office in Yokohama. The product of the company is chiefly consumed in the eastern, northeastern, and Shinyetsu districts, for railway construction, harbour works, hydraulic electrical undertakings, water-works, and drainage, bridges, steel-framed concrete buildings, etc. The works is said to be a model one in Japan and is much frequented by professional engineers.

The Board of Directors consists of Messrs. N. Yoshinaga, K. Abe, S. Iwasaki, R. Okano, and K. Omiya, and Messrs. H. Muto, O. Kida, and R. Ota are Auditors.

The tables on the preceding page show the company's profit within the last two years. Profit rate is compared with paid-up capital

LACQUER INDUSTRY

ON account of its high excellence of form, design, and execution Japanese lacquer may be

said to hold first place among the art industries of the nation, and will be so treated under the head of Arts and Crafts.

The manufacture of lacquer as an industry has suffered from excess of output and decrease of export, the latter being due chiefly to the use of cheap Chinese lacquer and imperfect preparation of the wood, which is fatal when the goods reach a drier climate. Cardboard imitations from Germany have also come into competition. About two-thirds of the lacquer juice used in Japan comes from China, and being obtained from wild trees and crudely refined, is always inferior to the Japanese variety. The most common objects in lacquer ware are rice and soup bowls, trays, cake boxes, glove boxes, and various household utensils, as well as cabinet and ornamental objects of exquisite finish and design.

There are some thirty kinds of plain, metallic, and coloured lacquer, each with different names and slightly differing in appearance, gold lacquer, plain and red or brown being the more popular, and the articles and designs are infinite in variety. The beautiful deep red of the Luchu lacquer is also famous. The great centres of the industry are at Wajima and Yamashiro in Ishikawa, which are famous for good work, as are also Kuroe, Takamatsu, and Shizuoka. Lacquer is now finding increased demand for finishing cars and carriages, as well as for coating bottoms of warships. The annual output is valued at 10,000,000 yen, of which about 1,000,000 yen represents exports. (See also Arts and Crafts Section of this volume.)



DOTONBORI RIVER AT OSAKA. THE VIEW FROM YEBISU-BASHI BRIDGE

SILK INDUSTRY

JAPAN's natural advantage in having a climate favourable to the mulberry tree and the rearing of the silkworm marks her out for a silk-producing country, while her long experience in sericulture and silk weaving, together with a native deftness for delicate tasks on the part of the people, renders her still further well adapted to this industry. Having devoted her attention to silk for more than fourteen centuries, the industry is naturally Japan's largest and most important enterprise. Japan is the largest exporter of raw silk in the world. By raw silk is meant the fibre unwound from the cocoons and reeled into hanks. While the Japanese are experts in reeling silk they have made little attempt at thrown silk, consequently most of the output is exported raw. Spun silk, in contrast with thrown silk, is made from silk waste, much as yarn is made from wool, and exported from Japan to weavers in Europe and America. The most important of Japan's woven silks is known as habutai, an undyed material used chiefly for ladies' blouses, and turned out by Japan of a quality and at a figure with which no other country can compete. Handkerchiefs, taffetas, crepes and other goods are also made, their market being chiefly in the Orient. Among the more lovely of Japan's silk productions is what is known as brocade and silk tapestry, at which Japanese artists are unrivalled. Notwithstanding the steady increase of wages among silk workers, Japan still produces silk goods cheaper than any of her rivals. Although the Government has inspectors and silk conditioning houses the output is still often irregular in both quantity and quality, but no doubt in time a greater uniformity will be attained. The annual output of raw silk is over 184,000,000 yen in value, and woven goods have an annual value of 123,000,000. The number of persons connected with the production of silk is well over one and a half millions, and the chief centres of production are in the districts of Shinshu and Koshu. (The importance of this industry warrants a separate article, to which the reader is referred.)

OTHER INDUSTRIES

MATCHES first began to be made in Japan in 1875. As the people had so long been accustomed to producing fire from flint and steel, there was considerable prejudice to be overcome in introducing what was regarded as "hell-fire," as they regarded the sulphur match. After an indifferent history of ten years there was a sudden revival in the industry, with a rapid increase of factories and an output of over 15,000,000 yen in annual value. The centre of the industry is

around Osaka, producing over 90 per cent of the total, the varieties being chiefly safety matches, phosphorus, sulphur, and phosphorus sulphide. More than 85 per cent of the output is exported, chiefly to China, Hongkong, British India, the Dutch Indies, the Straits Settlements, Siam, and the United States, the annual value being over 23,000,000 yen. Technically, Japanese matches need improvement in some respects, the box and splints being weak, while the heads are easily affected by dampness. It is on the strength of cheapness that Japanese matches compete so well with Western products, being 45 per cent cheaper in the markets of Asia.

The paper-making industry is making remarkable progress of late. Two processes are carried on, one by hand and the other the regular machine-made paper. More than 150,000 people are engaged in turning out paper by the old methods of hand filtering, the annual output having a value of over 20,000,000 yen. The machine filtering process started in 1872 with the establishment of the Oji Paper Mill, and there are now several companies, which produce a total valued at over 44,000,000 yen annually, with an export value of about 3,000,000 yen. For foreign paper Japan has been accustomed to get pulp from Norway and Sweden, but since the war she has been creating wood pulp industries in the forests of Saghalien with promise of abundant supply. But imports of paper still total over 3,000,000 yen a year.

Soap making is another industry that has made remarkable progress in recent years. The largest factories are the Marumiya and Kwao works in Tokyo, and the Hagiwara and Haruki factories in Osaka, with one large foreign factory, that established by Messrs. Lever Brothers of Port Sunlight, with a capital of 3,000,000 yen, which has no equal in Japan for completeness of equipment and excellence in quality of output. The value of the annual output of soap in Japan is about 4,500,000 yen for toilet and 2,500,000 for other soaps, exports of both totalling something over 1,000,000 yen. Imports of soap amount to about 200,000 yen a year, of which more than half is laundry soap. Most of the exports go to China and Manchuria, as well as to the South Seas. There is a good deal of complaint as to the abnormal percentage of flour used in Japanese soaps, but the Government is now exercising close supervision and the amount of adulteration is to be limited.

Celluloid manufacture began in Japan in 1908 under the auspices of the Mitsu Bishi Company, with a capital of 1,200,000, and another factory, established by the Mitsui Bussan Kaisha, with a capital of 2,000,000 yen. These concerns turn out about 5,000 pounds a year, but owing to technical defects

the results have not been quite satisfactory in spite of unique advantages as to camphor supply. Naturally the war lent great impetus to the manufacture of this article in Japan.

Artificial fertilizers have come to occupy an important place in the national economy of Japan. For centuries the land was manured with ordure from the cities and towns as well as with composite, green manure, and fish manure, but in recent years artificial fertilizer has come into use, the production having trebled in the last ten years. The annual production is now as follows: Animal origin, 10,562,000 yen; vegetable origin, 11,977,000 yen; mineral origin, 16,314,000 yen; composite, 17,481,000 yen; or a total of 56,389,000 yen annually.

Fish oil is taken chiefly from the whale, the herring, and the sardine and is used more abroad than at home, where it is usually used in cooking only. Methods of extraction are still crude, foreign manufactures being able to get almost twice as much oil from the same quantity of fish meat as the Japanese do. The annual output is about 48,000,000 gallons of sardine oil, valued at over 1,000,000 yen; 3,500,000 gallons of herring oil, valued at about 216,000 yen; 2,500,000 gallons of whale oil, valued at about 255,000 yen; of other fish oils, more than a million yen worth is produced, the total fish oil output for the year representing a value of more than 2,000,000 yen.

Osaka is the centre of the glassware industry, where the output is equal to about 6,000,000 yen a year, the chief manufactures being bottles and sheet glass, the latter having already driven imports out of the market, yet the total import of glass of every description is still over 5,000,000 yen annually.

The button industry is making great headway in Japan, the annual production being now equal to over 2,000,000 yen a year, exports going for the most part to England, Germany, and France, especially shell buttons, while for metal buttons China is the principal customer. Most of the shells for buttons come from southern Japan and from the South Seas. (See the article on the Button Industry, in Section XIII.)

Factories for making watches and clocks first appeared in Japan as early as 1887, and by 1913 numbered as many as seventeen, the chief establishments being the Seikosha, the Ishiwara, and the Yamada, the latter two making the cases and importing the works. The Seikosha is by far the largest and most important establishment, employing about a thousand hands and turning out 200,000 standing clocks, 100,000 wall clocks, and 80,000 watches a year, at a total value of about 900,000 yen. Those who formerly

purchased cheap timepieces from Germany have recently turned their attention to Japan as a source of supply.

Since the introduction of electricity the gas industry in Japan has been suffering some reverses but is still thriving, though stocks have fallen below par. Efforts are being made to push gas as a means of heating and to increase the business in by-products. The following are the gas statistics for the year 1914: Number of lamps, 1,833,610; heating installations, 768,066; motor installations, 2,018; cubic feet produced, 5,644,854,000. The gas industry is chiefly in private hands, in contrast to electric enterprise, which tends to become a municipal undertaking. In 1914 Japan had 75 gas works, representing a capital of 68,521,000 yen, with about 6,000 miles of piping, the capital invested increasing to over 80,000,000 in 1917. The gas is principally from coal, acetylene being still negligible in amount.

No industry has made more rapid development than that of electricity. During the

four years from 1910 to 1914 the number of plants increased from 164, with 125,731 kilowatts, to 290, with 411,017 kilowatts, while 122 new plants are under construction. The above are for supplying power only. Taking all the electric undertakings into consideration, there are 1,940 plants with a total of 715,969 kilowatts. About 5,614,000 horsepower is being generated by water, supplying 2,330,000 kilowatts. This subject will be found more fully treated under the head of electric enterprises.

The sugar industry is carried on for the most part in the Luchu Islands and in Formosa, the latter island now producing about one-quarter per acre that of Java. Sugar refining with up-to-date equipment did not begin in Japan until 1895, since when several companies have been established, making favourable progress under rebate duties on raw imports by government concession. The average consumption of sugar in Japan is about 5,500,000,000 pounds a year, a little over ten pounds per head, while the annual pro-

duction is about 140,000,000 pounds in Japan proper, with 484,000,000 pounds from Formosa and 245,000,000 pounds from abroad. The exports of sugar total over 132,000,000 pounds a year. (See separate article on Sugar, Section LII.)

Flour milling started in Japan in 1878, but did not acquire a position of importance until 1897. The home supply of wheat is deficient, amounting to no more than 25,000,000 bushels a year, of which some 10,000,000 are used for soy making, so that the amount of wheat available for milling is only about 15,000,000 bushels annually. As no less than 20,000,000 bushels are required to produce the 15,000,000 sacks turned out from Japanese mills every year, large imports have to be brought from the United States, Canada, and Australia. Most of the flour output is of second grade, the best flour being still imported from the United States, amounting in value to over 1,500,000 yen annually. The total annual production of flour is now about



SCENE IN THE SHOPPING DISTRICT OF OSAKA (HIRANO-MACHI)

600,000,000 pounds, valued at over 37,000,000 yen.

The production of peppermint has been making progress of late, cultivation being carried on chiefly in Hokkaido. The annual output is about 170,000,000 pounds, valued at about 2,500,000 yen, of which a quantity worth about 1,500,000 yen is exported.

Rubber manufactures are limited to tires, tubes, and piping, working on a capital of some 3,500,000 yen, but competition is keen and as yet the supply exceeds the demand.

The vegetable wax industry has declined in late years, but recently there have been signs of recovery owing to a revival of the demand from abroad. The total annual output is valued at over 2,000,000 yen, the value of exports being over 1,000,000 yen.

Vegetable oils are extracted chiefly from rape seed, sesame, cotton, linseed, and camellia, the total annual output being worth about 16,500,000 yen.

Vegetable indigo, which before the war with Russia amounted to 80,000,000 pounds a year, was superseded by artificial indigo from Germany. But the European war having stopped imports, the natural indigo crop has been revived, producing now about 12,000,000 pounds a year, valued at 1,232,223 yen.

Straw, chip, and hemp braids have increasing demand both at home and abroad for making hats, the principal centres of the industry being at Okayama and Kagawa for straw, and Tokyo and Yamaguchi for chip braid. The annual production of straw and chip braid is about 1,650,000 yen in value, of which some 1,000,000 yen' worth is exported. Hemp braid has also witnessed considerable development of late and the annual exportation is now valued at over 11,000,000 yen.

The manufacture of figured and fancy matting made great progress so long as it was on the free list of imports in the United

States. After the imposition of duty in 1897 exports from Japan declined and now amount in value to from three to five millions a year. The matting is made from a reed, with coarse cotton thread as a warp. Though the exports to America have declined, they appear to be increasing to England, the European continent, and the South Seas. The annual production is valued at about 8,000,000 yen.

The trade in hides, leather, and furs is very prosperous in Japan, where the demand for leather goods has abnormally increased in recent years. The high protective tariff of more than 15 yen per 100 kin on leather has made the domestic manufacturer practically independent, assisted further by free trade in hides. Most of the leather is consumed in the making of trunks, bags, and boxes, as well as boots. The chief furs are those of seals, sea-otters, foxes, and weasels, which are more exported than used at home. The total leather output of Japan



BOARD OF DIRECTORS AND AUDITORS OF THE FUJI PAPER MILLS COMPANY, LIMITED

(Upper Row, Left to Right) Mr. Y. ANAMIZU, Director—Mr. N. KOYAMA, Director—Mr. Y. HIROSE, Director. (Middle Row) Mr. S. KUBOTA, Managing Director—Mr. R. HARA, President—Mr. T. TAKAHASHI, Managing Director. (Lower Row) Mr. S. YANAI, Auditor—Mr. H. ISHIDA, Auditor—Mr. H. SATO, Auditor.



is now valued at about 9,000,000 yen a year.

The making of hosiery is quite a new Japanese industry, with its principal centre at Osaka, and large exports to British India, China, and the South Seas, amounting to over 14,000,000 yen annually. For finer goods, however, Japan has to depend on England, from which she still imports goods to the value of about 150,000 yen a year.

extent of some 4,000,000 yen a year, exports amounting to over 1,000,000 yen annually, going chiefly to the United States and England.

Hair-brushes, nail-brushes, and tooth-brushes are produced in increasing quantities in Osaka and vicinity, the output being worth about 4,000,000 a year, of which some 3,500,000 yen' worth is exported, mostly to the United States. The bristles come for

and munitions, while some of the more important industries, like silk and cotton, have witnessed considerable expansion. The Government is at the same time carefully investigating the possibilities of industrial extension, and commissioners of trade are sent abroad to supply information as to markets. Having changed from a borrowing to a lending country during the war, Japan believes more than ever in her indus-



FUJI PAPER MILLS CO., LTD.: FACTORY NO. 2, LOCATED AT SHIZUOKA

Tinned goods consist chiefly of beef, crabs, and fruit, valued at over 5,500,000 yen annually, and are exported to the value of about 3,500,000 yen.

Isinglass finds increasing export to Europe and America for jam-making purposes, the total production being some 4,500,000 pounds, valued at 1,833,000 yen, of which about 2,500,000 pounds are exported, at a value of some 1,150,000 yen.

There is an enormous output of umbrellas in Japan, valued at 4,000,000 yen annually, of which Osaka produces most. The exports are chiefly to China, valued at over 1,500,000 a year, with handles to the value of about 120,000 yen.

Toy making is also a great industry in Japan, toys being now produced to the

most part from China, Germany, and Australia, and the bone from America, Australia, and Siam.

Munition works in the past have been under Government auspices, but the demand created by the European war caused the establishment of numerous private enterprises of this nature, of which there are at present about 1,260, employing some 80,000 hands. The great Japan Steel Works was established at Muroran in 1911, and this and the Kuré naval arsenal are the only places in the Far East capable of casting ordnance or shells of heavy calibre.

It will thus be seen that among the more prosperous of Japan's minor industries are those producing chemicals, electric apparatus, sheet glass, toys, porcelain, matches, flour,

trial future. That her policy may create keen competition with British industry need not necessarily prove to be the case, especially if Japan is encouraged in the direction of taking the place formerly occupied by Germany in the industrial world of East Asia. Industrially Japan is still in her youth, but it is youth of great vigour and promise, and as she is heir to the world's experience and has the untiring interest and assistance of the Imperial Government, she naturally anticipates a great future.

THE FUJI PAPER MILLS CO., LIMITED

THE Fuji Paper Mills Co., Ltd., obtained permission for the formation of the company in November, 1887, with a capital of Yen 250,000. The head office was then



PANORAMIC VIEW OF GENERAL FACTORY OF TOKYO ITAGAMI KAISHA,

located at No. 1 Sanjukkenbori, Itchome, Kyobashi-ku, Tokyo, and the mill was erected at Iriyamase, Takaoka-mura, Fuji-gori, Shizuoka Prefecture, the site being at the foot of the famous Mount Fuji. A water turbine was installed at one of the streams coming from the foot of the mountain, and power was thus obtained for the mill, the company being the first in Japan to utilise water power on a somewhat large scale. The manufacture of paper was started in January, 1890. At that time the art of paper-making was still in its infancy in Japan, and the market was almost entirely supplied with foreign-made paper, but with a regular output by the Fuji Paper Mills, Ltd., the local demands were gradually met. In March, 1891, the Takaoka Mill, which was the first to make mechanical pulp in Japan, commenced the manufacture of newsprint paper (*caragami*), this also being the first time it was produced in the country. From this time, the progress of Western civilisation, and the development of the printing art in Japan, enhanced the demand for foreign paper, and to meet this requirement the Fuji Paper Mills Co., Ltd., increased its capital to Yen 1,000,000 in 1894. This was followed by a further increase to Yen 1,500,000 in 1896, and the second and third mills were erected.

In 1899 the company began the export of its products to China. Later on (in 1906) a factory in Hokkaido was purchased to constitute the company's fourth mill, but work there has now been suspended. Then the fifth and sixth factories were erected in Hokkaido, and the eighth factory in Fuji-gori was built. In March, 1907, the Nippon Paper Manufacturing Co., Ltd., was amalgamated, and the capital was thus increased to Yen 10,000,000. The Noda Paper Factory, in Hyogo Prefecture, was purchased in November, 1915, and the Fuji Paper Mills Co., Ltd., thus owned eight factories in Japan. Further extensions of the company's operations followed. One important step of the extensions was the amalgamation of the Asahigawa Hydro-electric Power Co., Ltd., Hokkaido, the capital being increased to Yen 10,500,000, and the Fuji Paper Mills Co., Ltd., then began the supply of electric light and power to cities and villages, in addition to its own activities.

Since the outbreak of war in Europe not only has the supply of foreign paper been stopped, but the demand for Japanese-made paper has considerably increased at home and abroad. To meet the increased demands the company has effected improvements all round in its machineries and installations, as well as turning out a much better quality

of paper. In this connection there has been an addition to the number of machines, an enlargement of the motive power, and a general increase in the productive capacity of the mills. These developments necessitated still further capital and in April, 1917, the sum was raised to Yen 21,000,000, making the Fuji Paper Mills Co., Ltd., the largest concern of its kind in Japan. The company can turn out any kind of paper, such as ordinary printing paper, newsprint paper, packing paper, cardboard, prospectus paper, white and coloured prints, etc. The range of products and their quality are excelled by none, and equalled by few. The sulphide pulp factory and the 186-inch paper-making machines—the biggest and the newest machines in Japan—which are now under construction, are to be in operation by the latter half of 1918, and in case the hydro-electric power generating stations now under construction in Hokkaido be completed, power aggregating 20,000 horsepower is expected to be available. A staff of 600 experts and officials, as well as about 3,000 workmen, are employed by the Fuji Paper Mills Co., Ltd. The yearly output of the company's mills totals in value about Yen 20,000,000, the products being sold not only in Japan, but in Australia, India, China, Korea and elsewhere. Following are



LIMITED (TOKYO STRAWBOARD CO., LTD.), AT SENJU-MACHI, TOKYO

the principal officials of the company: Directors, Mr. R. Hara (President), Messrs. S. Kubota and T. Takahashi (Managing Directors), Y. Hirose, N. Koyama, and Y. Anamidzu; Auditors, Messrs. S. Yanai, H. Sato, and H. Ishida.

THE TOKYO ITAGAMI KAISHA, LIMITED

THE Tokyo Itagami Kabushiki Kaisha, or Tokyo Strawboard Co., Ltd., is an old established and well developed industrial concern, holding a prominent position in the important strawboard manufacturing industry of Japan, and also catering largely to the rapidly developing market for Japanese products from pulp and other paper-making materials. This joint-stock company was founded in 1886 for the purpose of manufacturing strawboard, and was capitalised at Yen 170,000.00. At that time the factory at Minami Senju-machi was equipped with an 85-inch Fourdrinier paper machine, with a capacity of about 400 tons per month. With this modest machine the Tokyo Itagami Kaisha became the pioneer of the Japanese strawboard industry, which has since reached enormous proportions. From its inception the enterprise was successful, and such progress was made that in 1896 the capital was increased to Yen 500,000.00, and a new Fourdrinier 110-inch machine was added to

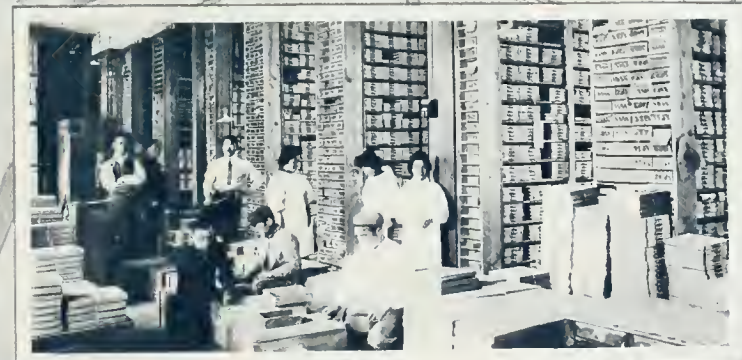
the plant, with a view to the manufacture of printing papers. This machine gave the factory a capacity in this particular product of 600,000 pounds per month. Of more recent years the development of the company and the increase of its production have been remarkable. In 1907 the capital was again increased, this time to Yen 1,500,000.00, and further developments of the plant followed. A 70-inch cylinder machine for the making of strawboard was installed, with a capacity of 500 tons per month, and at the same time the first machine was reconstructed to fit it for the manufacture of printing paper, for which the market was strong. In 1917 an 85-inch single cylinder machine was installed for the making of tissue paper, and the factory output in this line was increased to about 250,000 pounds per month. At the time of writing the annual output of the factory is 7,000 tons of strawboard and approximately 15,000,000 pounds of printing paper, tissue paper, etc. A steady policy of expansion has been pursued all along, and the management of the company has always kept in mind the wisdom of producing the very best goods. As a result of this, a sound export business has been built up. The Tokyo Itagami Kaisha ships strawboard to Shanghai, Tientsin, and Hong-kong, in China; Bombay, Calcutta, Sydney,

Melbourne, the United States and elsewhere, besides supplying a large quantity for the local market. The specialty of the company in the manufacture of printing papers is the production of a large output for books, though writing papers and wrappings are also turned out. These lines are sold locally and are exported to Russia, China, India and other foreign markets. The strawboard is manufactured from the domestic rice straw. Writing and other papers are made from Scandinavian and Saghalien chemical wood pulp, domestic cotton rags, and ground pulp for different lines.

The works of the Tokyo Itagami Kaisha, Ltd., cover a very large extent of ground at Minami Senju-machi. The buildings are for the most part of modern construction, and are well equipped. Power is generated for the various machines by steam engines of 1,500 horsepower and electric motors generating 500 horsepower in all. The staff consists of 40 experts, clerks, etc., and in the factories 500 men and women find employment. The officers of the company are as follows: Managing Director, Mr. Tokio Otani; Directors, Messrs. Soichiro Asano, Rinnosuke Yamanaka, Tadashi Miyama, and Ryosuke Suzuki; Auditors, Messrs. Kwanichi Ito and Yasubei Konishi, with Mr. Shichibei Ishikawa as Manager



THE DUNLOP RUBBER COMPANY (FAR EAST), LIMITED: THE KOBÉ WORKS AND EMPLOYEES — THE EUROPEAN STAFF AND FAR EASTERN BRANCH MANAGERS



NIPPONOPHONE COMPANY, LIMITED: THE KAWASAKI PREMISES — THE GENERAL OFFICE — SCENE IN THE PACKING AND SHIPPING DEPARTMENT — WORKMEN AND THE SHOP



GENERAL VIEW OF THE FACTORY OF THE

The following is the balance sheet of the company for the half-year ended May 31, 1917. Included in the valuation of buildings is the sum of Yen 50,000, which was redeemed out of profits during the half-year under review. A further sum of Yen 100,000

was paid off on machinery and utensils account out of profits in the same period.

THE DUNLOP RUBBER CO., LIMITED

ONE of the greatest of British industrial companies, the Dunlop Rubber Co., Ltd., is

well represented in Japan, having established a factory at Wakinohama, Kobé, some years ago. The works and plant are readily admitted to be the most up-to-date and best equipped in the Far East, and the operations of the company are of corresponding magnitude, over 1,000 Japanese work people being employed under the superintendence of a large staff of European experts. That this is so, is in keeping with the history of the famous Dunlop Company, which was the pioneer of the pneumatic tyre industry, the original patents having been granted to Mr. Dunlop, the inventor, in 1888. The record of the enterprise since that time is one of the most interesting in the history of British industrialism, huge amounts of capital having been invested in the business to give it the world-commanding position it occupies to-day. Branches of the company have been established throughout the world, and it was only in July, 1917, that the capital of the parent company was raised from £3,000,000 to £6,000,000, to permit of

| LIABILITIES | ASSETS |
|---|--|
| Yen | Yen |
| Capital.....1,500,000.00 | Uncalled capital..... 500,000.00 |
| Reserves..... 268,267.00 | Land..... 67,774.95 |
| The Hypothec Bank of Japan... 231,743.30 | Buildings..... 169,364.56 |
| Bills payable..... 151,094.72 | Machinery and utensils..... 709,542.17 |
| Unpaid account..... 117,484.95 | Raw materials, etc., in store... 435,139.40 |
| Brought from last account..... 40,905.84 | Manufactures..... 82,291.53 |
| Profit for the current half-year.. 189,495.48 | Bills receivable and outstanding accounts..... 477,301.55 |
| <i>Total</i>.....2,498,991.29 | Deposits and cash in hand..... 29,721.00 |
| | Premium not yet expired..... 1,918.46 |
| | Temporary payment..... 25,937.67 |
| | <i>Total</i>.....2,498,991.29 |



MITATSUCHI GUM SEIZO GOMEI KAISHA, TOKYO

further extensions, and to allow the company to finance the purchase of the immense stocks of material it must have on hand. Some idea of the extent of the operations of the Dunlop Rubber Co., Ltd., may be gathered from the statement made by the "Motor Export Trader," that in solid tyres alone, the variation is so great that stocks must be on hand to meet any sudden demand for any one of between 250 and 300 different sorts. The Dunlop stock was valued in July, 1917, at £2,250,000, most of it manufactured material.

The Kōbē factory and office are the manufacturing and distributing centres respectively for the Far East, and the organisation to handle such a vast extent of territory is a large and experienced staff. The company acts as contractor to the Japanese Imperial Military and Naval Arsenals, supplying them with electric, marine, and general rubber goods. The motor and cycle tyre trade is growing yearly and the company's goods in these lines enjoy a favourable reputation in the Orient. There is also a

demand for Dunlop Solid Band tyres for heavy commercial vehicles, carriage tyreing, pneumatic and solid rikisha tyres, and motor-cycle tyres. The excellence of the company's rubber goods for chemical and surgical purposes is appreciated the world over, and these lines enjoy a well-merited and ever-increasing demand in Japan and elsewhere.

THE MITATSUCHI GUM SEIZO GOMEI KAISHA

AN old established and flourishing industry is that controlled by the Mitatsuchi Rubber Manufacturing Company, at Honjo-ku, Tokyo. This company is perhaps the largest manufacturer of rubber articles in Japan, and its business is constantly expanding. The business was founded on December 2, 1886, so that with over thirty years' experience, it is not surprising to learn that the Mitatsuchi Company is producing goods of the highest quality, not only in strong demand in the local markets, but eagerly sought for abroad. The Mitatsuchi Gum Seizo Gomei Kaisha was founded by the late Mr. Tadaatsu Tasaki, associated

with the present partners, Messrs. Hidetatsu Tsuchiya, Tadahiro Tasaki, and Nagakuni Tasaki. Like most new industries in Japan, this one had to encounter many difficulties in the early days of its history, but the partners persevered and have had the satisfaction of seeing the business grow to a high state of prosperity. To-day the two factories of the Mitatsuchi Company are turning out all classes of gum, ebonite, and gutta percha manufactured goods. Among the principal lines are rubber balls for tennis and other games, rubber shoes, rubber dolls, toys, hose, rubber plates for electrical and mechanical engineering, telephonic, railway and marine use, rubber tyres, erasers, and so forth, the output covering pretty well every line for which there is any demand. The company has exported some large orders to England, Canada, Australia, India and elsewhere, and the most favourable reports have been received regarding the quality and durability of the goods. The company supplied all the requirements of the East Indian Railway Co., Calcutta, and

received a highly complimentary report on the satisfactory nature of the work done.

The works of the Mitatsuchi Gum Seizo Gomei Kaisha include two factories, the main works being at Narihiracho, Nakago, Honjo-ku, Tokyo, and the branch factory at Shimohiraimura, Komatsugawa-machi, Tokyo-fu. These works cover an area of 3,919 *tsubo*, and consist of brick, concrete, and wooden buildings, the factory at Honjo-ku being a modern four-storied building. The plant installed at the works comprises the latest and best machinery, including washing mills, mixing mills, calendars, crackers, tubing machines, vulcanisers and vulcanising presses, patent rubber ball-making machines, hose-making machines, etc. The motive power is both steam and electricity. The factories give employment to 430 men and 306 girls, and the annual wages bill is well over Yen 170,000. The capital of the Mitatsuchi Gum

Seizo Gomei Kaisha is Yen 80,000.00 (fully paid up) and the reserves total Yen 1,050,000. With an annual output valued at Yen 1,500,000.00, it can be seen that this company has made a distinct success of the rubber-manufacturing business in Japan.

THE NIPPONOPHONE COMPANY, LIMITED

THE history of the Nipponophone Company, Ltd., furnishes an interesting idea of the growth and development of such enterprises as might be justly regarded as entirely foreign to Japan in their origin, but which, nevertheless, by foresight and energy, and a sound judgment as to the needs and requirements of the country, can be established and carried through to success. In this particular case the opportunity to add such an industry to the rapidly increasing number in Japan was recognised and grasped by an American, Mr. F. W. Horne, of Yokohama. An investi-

gation of the phonograph and record business revealed to him that little or nothing was being done to popularise the invention among the Japanese, although there was every evidence that the people were as keen as those of other countries to avail themselves of the phonograph. Mr. Horne accordingly founded the Japan-American Phonograph Manufacturing Company in 1908, with a capital of Yen 250,000, being assisted by a number of American and British friends in Yokohama. The manufacture of phonographs was entered upon the following year. Up to this time (1909), machines and records were imported to the number of approximately 87,000 in the year. The price was very high, and the number of Japanese songs recorded was few, owing to the large expense to foreign companies of sending their experts to Japan to make records. There was only one firm dealing exclusively in records, and the number of people deriving employment from the business was only twenty-two. The records could be enjoyed solely by the wealthier classes, and this fact, combined with the limited extent to which Japanese musical tastes were being catered for, gave the Japan-American Phonograph Manufacturing Company its great chance. During the first year of operation 190,000 records were made, giving employment to 150 people in the manufacturing department, and 103 in the sales. Next year the output increased to 340,000, and the factory employees numbered 210, while the sales department engaged the services of 150. Due to the great reduction in price of the locally made records, and the recording of national songs and popular airs, the development of the company's business was very rapid. In 1911, 530,000 records were made, the manufacture giving work to 366 artisans, and the sales to 200, besides which 106 shopkeepers in various parts of the country were selling the company's product. During 1911 the Copyright Bureau allowed the registration of copyright to the authors of records originally recorded in Japan. This gave great impetus to the business, as by such protection the manufacturers now considered it safe to invest large sums of money in order to record the best known artists and purchase the copyright. Accordingly a large number of records was taken this year, the result being that the national songs were introduced throughout the length and breadth of the land on the gramophone, recording the voices of the leading artists for posterity, and still further popularising the instrument. The number of records turned out in 1912 jumped to the phenomenal figure of 1,300,000, and 17,000 phonographs were manufactured. During this year the manufacturing and selling companies amalgamated, and the joint



PREPARING THE HEMP FOR USE IN THE MANUFACTURE OF HEMP BRAID



THE JAPAN MUSICAL INSTRUMENT MANUFACTURING CO., LTD.: THE WORKSHOPS AND GENERAL VIEW OF THE FACTORY

enterprise became the Nipponophone Company, its capital being increased to Yen 1,000,000. At this time there were branches throughout Japan, and the agencies opened numbered 350.

The Nipponophone Company has its executive office at 70-C, Yokohama. The Directors are Mr. F. W. Horne, President (also President of the F. W. Horne Co.); Mr. J. R. Geary, Vice-President (Vice-President of the Tokyo Electric Co.); Mr. H. A. Ensworth, Treasurer (Manager of The Standard Oil Co. of New York); Mr. F. H. Bugbird (Manager for Messrs Jardine, Matheson & Co.); and Mr. R. F. Moss (Consulting Engineer of American Trading Co., Tokyo). The company has sent home all of the original foreign experts, and the operations are carried on by the General Manager, Mr. J. A. Rabbitt, while the works are managed by the Japanese Engineer, Mr. K. Fukushima. Shareholders number about 80, most of whom are Europeans, though about 20 per cent are the company's agents in the provinces.

The works are situated on the banks of the Rokugo River, the area covered being 8,100

tsubo. There are two groups of buildings, one for the factory and the second for the reception of the finished products. In the latter the offices of the Nipponophone Company are located. The motive power of the works is steam, developed by two 125 horsepower boilers, serving one engine of 125 horsepower and two others of 45 horsepower each. The buildings are brick, of the most modern construction, with the latest fire protection equipment. The machinery is automatic, of the most recent American type. The workmen at present number 310, but this force will be shortly increased as the company intends to bring out new phonographs for export to take the place of German goods, which were formerly sold in the Oriental markets. Many of the workmen are specially skilled in their craft, having been in the company's service for years. Most of the raw material is purchased abroad and is divided into two classifications, one for machines, and one for records. Materials for phonographs comprise special rolled steel, sheet brass, cedar, etc., and for records clays are required, as well as gum, glue, zinc, talcum and other

powders. Part of these requirements are now being met in the local markets. The Nipponophone instrument is cased in a handsome cabinet, constructed of selected wood, highly finished and specially seasoned and treated to stand climatic conditions. The motor mechanism is the spring motor, delicately adjusted, and tested, all the mechanism being constructed in the company's works. The records at present being made are mostly of the double-face type with sound waves on either side. The retail price is Yen 1.50. By its liberal treatment of its agents, the company has firmly established the keenest interest in the handling of its high quality goods. Phonograph machines range in price from Yen 15.00 to yen 150.00, but the most popular type is that retailing in the market for about Yen 25.00. The Nipponophone Company holds the original patent in Japan for the hornless model, and popular taste is gradually changing in favour of this machine. The company is also engaged in the manufacture of steel wood screws, electric insulation supplies, machine tools and accessories, phonograph and other needles, ice cream freezers,

etc. In addition to its branches in Japan proper, the company also has branches in Taiwan, Dairen, and China. Honours have been won by the company at expositions as follows: Gold medal from the Colonial Exposition; gold medal from the Summer Fair of Yamato Shimbun; first prize from the Summer Fair; gold medal from the Industrial Exposition held at Kokugikwan; gold medal from the Summer Fair at Osaka Nipposha; letter of thanks from the Katei Hakurankwai; gold medal from the Nihon Jitsugyo Fair; gold medal from the Industrial Exposition at Yokohama; letter of thanks from the Children's Fair; copper medal from the Taisho Exposition, and letter of thanks from the Jido Hakurankwai.

THE JAPAN MUSICAL INSTRUMENT
MANUFACTURING CO.,
LIMITED

BEFORE entering upon a description of the operations of this important company, which was the pioneer of a new industry for Japan, it will be interesting to recite the history of the late Mr. Torakusu Yamaha, the founder of the company. By doing so one is enabled to present the reader with the story of the introduction of foreign musical instruments in Japan, and describe the development of their use, leading up to the establishment of the industry of the manufacture in Japan of organs, pianos, and other instruments.

The late Mr. Yamaha was a Samurai of the Tokugawa Clan, born in the Province of Kii. After the Restoration he came to

Hamamatsu, and started in business as a wood worker, watch, clock, and surgical instrument maker, etc. From boyhood he had a gift for music, and played most instruments remarkably well, though he was never tutored in music. He was a particularly good player of *samisen* (the Japanese three-stringed musical instrument), although he always maintained that he could only play those instruments which he himself made. About 1884 Mr. Yamaha first became acquainted with the intricacies of foreign musical instruments. At that time there was an organ at the Hamamatsu Elementary School. The instrument got out of order, and nobody could rectify the fault, all being mystified at its complicated mechanism. Mr. Higushi, a member of the Committee for Education, consulted Mr. Yamaha and invited him to try to put the organ in order, an honour which the father of a new industry duly appreciated. He tried his hand at the foreign instrument, and succeeded in effecting the necessary repairs and adjustments. Mr. Yamaha then gave considerable thought to the whole question of the manufacture and repair of foreign musical instruments, rightly arguing in his own mind that as the importance of such instruments and music was recognised by the States, especially for use in schools as an aid to education, it was a most regrettable thing that Japan was not able to manufacture for herself, or even to repair, the instruments needed. Mr. Yamaha was influenced by many considerations to decide that the moment was opportune for starting such an industry.

With this resolution before him Mr. Yamaha started building an organ in 1885, at which time he was thirty-five years of age. It was an ambitious undertaking, beset with difficulties, for there was no one from whom he could receive instruction, no materials to work on, and no tools to work with. He received some assistance from the late Mr. Kisaburo Kawai, and after much trouble built an organ, following as closely as he could models of similar instruments which he had inspected. Mr. Yamaha took his organ to the Musical Investigation Committee of the Education Department, which was the forerunner of the present Tokyo Musical College. Mr. Shuji Izawa, who was the Chairman of the Committee at that time, had the Japanese-made organ carefully examined by specialists and the decision was that, though in all details as to construction, shape, etc., the result of Mr. Yamaha's work was the same as the foreign instrument, the organ was all out of tone, and could not be used at all. With such a verdict Mr. Yamaha was not at all discouraged. He entered himself as a student of the musical school, and called on many musicians to implore their advice and assistance in the scheme that was ever in his mind. As the pioneer of a new industry his position was not a happy one. He had no workmen, little or no experience, and owing to the difficult economic conditions he could not find any one to support him financially in his work. His only friend and backer was Mr. Kawai, who gave him what support and encouragement he could, so that Mr. Yamaha could devote himself to study and investigation.

Success came to Mr. Yamaha after some time, when at last he produced an organ in which the tones were right. This success created some interest on the part of the public, and in 1889 a joint-stock company was formed with a capital of Yen 30,000. Even so, progress was slow. The company had many ups and downs, and sometimes the business passed into individual hands. However, the determination of Mr. Yamaha swept away all obstacles. Organs were built in increasing number, each one better in quality, and sales were made in China. In 1894 some organs were exported to England and there the intrinsic value of the instrument was recognised. In 1897 the concern was reorganised as a limited liability company with a capital of Yen 120,000, under the name of the Japan Musical Instrument Manufacturing Co., Ltd. Subsequently the capital was several times increased and to-day it stands at Yen 1,200,000. Meanwhile, in 1900, the manufacture of pianos was begun. In 1903 the Woodwork Depart-



METHOD OF SUN-DRYING PAPER EMPLOYED IN A SMALL FACTORY



PLANT OF THE TOKYO ROPE MFG. CO., LTD.: GENERAL VIEW OF THE FUKAGAWA FACTORY, TOKYO—THE KOKURA FACTORY—
POWER PLANT AT KOKURA FACTORY—GENERAL VIEW OF THE TSUKIJIMA FACTORY, TOKYO

ment was greatly enlarged and two years later the company, which up to now had always imported the parts of the organs and pianos known as the "action," began manufacturing for its own requirements. The process of veneering was started in 1911, and in the same year the Accessories Department was established, and the manufacture of musical toys was entered upon.

The Russo-Japanese War produced an economic crisis which badly affected the company, and the Boxer Rebellion in China in 1900 also meant a great loss of business, which had been brisk up to this time. The financial arrangements of the Japan Musical Instrument Manufacturing Co., Ltd., did not work smoothly, and conditions were bad until Mr. Yamaha induced Mr. Chiyo-maru Amano to join the company and restore its financial standing. Mr. Amano agreed, and devoted himself to the improvement of the company's business affairs, leaving Mr. Yamaha free to attend to improvements on the manufacturing side of the company. By their joint exertions the affairs of the company were again placed on a sound and healthy basis. Mr. Yamaha was obliged to resign in August, 1916, owing to illness, which led to his demise some time later. Since then Mr. Amano as President of the Japan Musical Instrument Manufacturing Co., Ltd., has gone on with the work of improving the quality of the company's manufactures, and enlarging the sales, at the same time starting the manufacture of harmonicas, machinery for which was invented by the company's experts. This new industry is a big thing for Japan. Formerly the manufacture and sale of harmonicas for Japan was a monopoly of Hohner, of Germany. Judging by the recent bright conditions which have attended the operations of the company, its future is now assured.

About 65 per cent of the pianos made by the company are sold in Japan and the balance are exported, principally to Australia, though they are also shipped to Singapore, the South Seas, South America, and China. The harmonicas are exported chiefly to England, being for local use. The manufacture of organs represents only about 30 per cent of the operations of the company, although this was the original industry. The majority of the instruments are sold in Japan, though there is a large export business, chiefly to Australia and India. The Woodwork and Musical Toys Departments manufacture principally for local sales, though there is some degree of export trade with Australia, America, and India.

The head office and factory are situated at Hamamatsu. There are also branches located at Tokyo and Dairen.

THE TOKYO ROPE MANUFACTURING CO., LIMITED

THE Tokyo Rope Manufacturing Company, Limited, is the oldest manufacturer in Japan, having started the industry of hemp rope making by machinery in 1887. Among the founders of this concern, which may justly claim to be the pioneer of a new industry in Japan, were such well known business men as Messrs. E. Shibusawa, S. Asano, T. Masuda, M. Yamada, and the late O. Watanabe. With the small initial capital of Yen 70,000, the company established one small factory and entered upon the production of hemp rope, later on developing the plant extensively and including in the production such lines as steel wire rope, etc. In this latter branch of industry the company rightly claims to be the pioneer manufacturer in the Far East. The steady progress of the Tokyo Rope Manufacturing Co., Ltd., necessitated new factories and additional plant, and new works were erected at Tokyo, Hyogo, and Kokura, the capital being increased from time to time to admit of these expansions. To-day the company owns seven works, namely, two for hemp rope making, three for wire rope, and two for steel. The wire rope works are equipped with wire drawing mills, patenting or tempering furnaces, galvanising plants, and other necessary machines and up-to-date appliances for producing steel wires and laying them in ropes. In these works there are also complete equipments for the testing of wire and ropes, and laboratories for making microscop-

ical and other examinations of the structure of the steel employed. In order to be assured that every coil of wire is fully up to the highest standards, the most stringent tests are made before the wire is used in the ropes. The hemp rope works are replete with machines of the most improved type for making all kinds of hemp and cotton ropes and cords. There are also rope works of great length, so that if ropes made by that method are preferred to those of ordinary make, they can be turned out to order. At the steel works, heavy steel castings are made, as well as forgings, steel bars, wire rods, rope fittings, etc. As proof of the entirely modern methods under which the Tokyo Rope Manufacturing Co., Ltd., is working and as evidence of the quality of its products, it is only necessary to say that the company are rope and steel makers approved by Lloyds, after the most severe tests, and that they are also contractors on the approved lists of the Imperial Army and Navy.

The head office of the company is at Sanjukkenbori, Kyobashi, Tokyo. The steel wire rope works are situated at Fukagawa, Tokyo, Susaki, Tokyo, and Yamagoshi-cho, Kokura. The wire mill is at Oshima-cho, Tokyo. The hemp rope works are established at Tsukishima, Tokyo, and Hyogo, Kobé, and the steel works are at Oshima-cho, Tokyo, and Konomi-machi, Kokura. These various plants and works cover a total area of 103,545 *tsubo*, and employment is found for about 4,400 hands. Apart from the large



TEA PICKERS ON A PLANTATION AT SHIZUOKA



GENERAL VIEW OF THE FACTORY AND WORKS OF THE YOKOHAMA ROPE MANUFACTURING CO., LTD.



BIRD'S-EYE VIEW OF THE FACTORY OF THE SOUTH SEAS FIBRE INDUSTRY CO., LTD., AT SAKAI

local trade which the company is doing, especially since the great development in the mercantile marine has taken place, a large portion of the products are shipped abroad, and in this connection the company will always welcome trial orders, which are assured of the best attention, and the earliest delivery possible. The capital of the Tokyo Rope Manufacturing Co., Ltd., is now 6,000,000 yen, and the reserve fund is 2,225,000 yen. The foreign business of the company is handled by the many branches throughout the world of the Mitsui Bussan Kaisha and Okura & Co. Following are the principal officers of the company: Chairman of Directors, Mr. M. Yamada; Managing Directors, Messrs. M. Tomura and H. Akamatsu; Directors, Baron K. Okura and Messrs. S. Asano, T. Miyama, and K. Fujikura; Auditors, Messrs. S. Watanabe and S. Makihara.

THE YOKOHAMA ROPE MANUFACTURING CO., LIMITED

THE Yokohama Seiko Kabushiki Kaisha was founded in March, 1911, by Messrs. Masao Onishi, President and Director,

Hikosuke Ishizuka, Managing Director, and Kanematsu Enokishita, Director and General Manager. Originally the capital was Yen 500,000, but this has since been increased to Yen 1,000,000. From the outset there was a strong demand for the company's products, and as time passed the plant was adapted for the manufacture of all classes of rope, for ships and general use. Manila rope was first made in March, 1912, and white hemp rope, tarred rope, and wire rope, as well as ordinary wire, were turned out from May, 1914. The Yokohama Rope Manufacturing Company's plant is established at No. 1408, Kanagawa-machi, and there is a branch at No. 29, Kitanom-machi, Satsuma-bori, Nishi-ku, Osaka. The main factory site has an area of about 10,000 *tsubo* and the building covers about 7,500 *tsubo*. Brick, reinforced concrete, and timber have been used in the construction, and it is hardly necessary to say that the machinery and plant is entirely modern. Apart from the staff of 60 experts and clerks, the company employs about 1,200 workmen, and pays annually in salaries and wages over Yen 300,000. The output of the factory is valued at Yen 8,000,000 per annum. It is

interesting to know that the Yokohama Rope Manufacturing Co., Ltd., was included in the approved list of manufacturers by the Imperial Japanese Navy as far back as 1914, when it had been in existence only a couple of years. Furthermore, its product and manufacturing arrangements were recognised to be excellent, and were approved by the world's authority, Lloyds, who included the factory in their approved list in 1917, after the necessary severe tests. The quality of the company's manufactures is admitted by all engaged in shipping, mining, fishing and similar industries, and it is not surprising to learn that the factory is continuously working at high pressure to supply orders, a large number of which have been received from the Russian Government. The principal officers of the Yokohama Rope Manufacturing Co., Ltd., are: Directors, Messrs. Masao Onishi. (President); Hikosuke Ishizuka (Managing Director), Baron Naotake Ando, Toji Maruoka, Tokunosake Takahashi, Kanematsu Enokishita (General Manager), and Keizo Nagamine. The Auditors are Messrs. Kuranosuke Kimura, Konosuke Otani, and Heibei Sakazaki.



THE JAPAN HIDE AND LEATHER CO., LTD.: OSAKA FACTORY — TOKYO FACTORY — SHANGHAI FACTORY — TIENSIN FACTORY

THE SOUTH SEAS FIBRE INDUSTRY COMPANY, LIMITED

MR. MAIAZO KITA, President of the Nanyo Sen-i Kogyo Kabushiki Kaisha (South Seas Fibre Industry Company, Ltd.) has the distinction of having developed another addition to the industrial enterprises of Japan, and what he has done with the opening up of the manufacturing business he now controls is indicative of the energy with which some Japanese business men readily exploit new ideas.

The history of the Nanyo Sen-i Kogyo Kabushiki Kaisha dates from the time when the Imperial Government took possession of the Caroline Islands, which were wrested from Germany shortly after Japan entered the Alliance against the Central Powers. Investigations were at once started to determine the resources of the islands, and in October, 1915, Mr. Kita despatched his representatives to see what opportunities there might be for trade. The island of Ponape in the East Carolines was reported to be prolific in callao trees, and experts under Mr. Kita's direction went thoroughly into the question of utilising the fibre of these trees. It may here be remarked that the fibrous nature of the callao tree was already well known to all those interested in the manufacture of ropes and strong textiles, and the plenitude of the trees in the South Seas was also common knowledge. Up to the time experts went into the matter for Mr. Kita it was not known, however, how to treat the fibre, and consequently the callao tree as a source of supply was disregarded. Mr. Kita's investigations resulted in the discovery and patenting of a process of a chemical nature, for handling the callao tree fibre, and preparing it for rope and cloth making, to supersede hemp and flax. Thereupon Mr. Kita applied for and obtained a lease of about 24,000,000 *tsubo* of land at Ponape, and in the early part of 1917 formed the Nanyo Sen-i Kogyo Kabushiki Kaisha, with a capital of Yen 1,000,000. By this action another very important industry was established for Japan.

The company is now fully engaged in the cultivation and production of callao and other fibres, as well as in the purchase, sale, and manufacture of raw materials obtained from the leased land and other areas. The factory has been established in Japan, at Minato-cho, a suburb of Sakai City, near Osaka. Extensive arrangements have been made at Ponape for the gathering of the raw material, the company having about 500 Japanese and native employees at work, tending the trees, stripping the bark, and in other ways handling the fibre product, which is then shipped to Japan for treatment in the factories. In the latter there are about 500 workmen

engaged in the manufacture of ropes and the spinning and weaving of various kinds of cloth. For these purposes spinning and rope-making machines, built in Japan, or imported from England and the United States, are used, the motive power being electricity. It has been demonstrated that the fibre makes excellent ropes, and has the great and uncommon advantage that when dipped in water it becomes tougher. The rapid expanse of the shipping industry has brought about a general condition of activity in the rope and sail making trades, and it may be said that the inauguration of the industry of the Nanyo Sen-i Kogyo Kabushiki Kaisha was a most timely one. It has meant the opening up of a hitherto neglected source of raw materials, reasonably close to a large manufacturing centre and the production of ropes and other material at a much lower cost than is the case with the use of other fibres, such as hemp, etc. The factories are turning out about 30,000 pounds of rope and cloth fibre a day, and the business is still in its infancy.

The head office of the company is at No. 2 Higashi Horikawacho, Kita-ku, Osaka. The Board of Directors consists of Messrs M. Kita (President), R. Hanta, S. Nango, S. Tsukaguchi, and (Auditors) Messrs. A. Yamada and T. Matsumura, and K. Hashimoto, Manager.

THE JAPAN HIDE AND LEATHER CO., LIMITED

THIS is the pioneer enterprise in the tanning industry of Japan, and to it is due a great deal of credit for having materially helped to make the boot and shoe and kindred trades in the country less dependent upon foreign leather. The Japan Hide and Leather Co., Ltd., was organised in 1907, with a capital of Yen 2,500,000 (all of which has been paid up), the promoters being well known men in the boot and shoe industry, or men equally well known in commercial circles. The tanning of locally produced and imported hides was at once entered upon, and the company has now made such progress that it is well able to compete in all ways with imported prepared leather, and to meet a large measure of the entire domestic demand. The most of the company's products find their way to the Army and Navy, but in addition, the reputation of the company is so high that there is a ready sale for its sole leather and beltings throughout Japan. Moreover, since the outbreak of the world war, the Japan Hide and Leather Co., Ltd., has received a large order from the Russian Government, and an export trade in other directions appears certain for the near future.

The company has two factories in Japan, one at Senju-machi, in the suburbs of Tokyo, and the other at Funade-machi, Minami-ku, Osaka. There is also a factory at Ikeda, Tokachi Province, Hokkaido, where tannic extract for the use of the tanning works is exclusively manufactured. Now that the business of the company has become so solid, the company has found it an urgent necessity to turn to China for an expansion of enterprise, and a few years ago a new tannery was opened at Shi-ka-wei on the outskirts of Shanghai. Very recently the Yu-Tsin Tannery Co. was established in Tientsin, with a capital of Yen 1,000,000, with the coöperation of Japanese and Chinese business men. This new establishment is practically a branch of the Japan Hide and Leather Co., Ltd., the outlook for whose trade in China is very prosperous. Specially keen attention has been paid by the company to preparing good leather for soles; and beltings and kid leathers are also specialties of the Japan Hide and Leather Co., Ltd. The "Phoenix Brand" products of the company's tanneries enjoy a world-wide reputation for their strong and enduring quality. This brand is claimed to be in no way inferior to foreign goods, and orders from abroad are regularly coming in, the foreign and domestic demands causing the directors some anxiety on account of the difficulty of getting skilled labour. The demand for beltings is showing a pronounced increase, and special attention has been given to this department of the industry, with the result that the company has been able to produce an abundant quantity of belting of excellent quality for home consumption. Many tanners in Japan have hitherto failed to produce a good kid leather, but the Japan Hide and Leather Co., Ltd., has overcome all difficulties in this direction, and by its painstaking efforts has been able to produce a kid leather almost equal to any foreign article.

In the factories of the company a first-class and thoroughly modern plant is installed, some seventy machines being in use. The number of hands employed is over one thousand, of both sexes, and the annual output averages, under present conditions, 700,000 sides of leather for domestic consumption alone. If the works could be run at their full capacity, given a proper supply of competent labour, this output could be increased about ten times. The Chairman of the Board of Directors of the company is Baron K. Okura, and the Managing Director is Mr. T. Ito. Many other prominent business men are interested in the concern. Some idea of the financial stability of the company may be gathered from the fact that its reserve fund is over Yen 1,600,-



THE JAPAN SHOE AND BOOT MANUFACTURING CO., LTD.: (LEFT) MAIN FACTORY, SENJU-MACHI, TOKYO—TSUKIJIMA FACTORY

ooo. Of the future of the company, there is no reason to doubt that it is singularly promising.

THE JAPAN SHOE AND BOOT MANUFACTURING CO., LIMITED

THIS company, which is known under its Japanese title as the Nippon Seika Kaisha, is one of the commercial enterprises of which those who wish to see Japan's complete economic independence of foreign imports of the ordinary necessities of life, are justly proud. It is a powerful company, and its success is an evidence of the capacity for organisation and handling of big enterprises which the modern business men of Japan exhibit. The company was formed in 1902 by the amalgamation of the four shoe works, the Sakura-gumi, Okura-gumi, Fukushima Gomei Kaisha, and the Tokyo Leather Manufacturing Company. The first of these four works, the Sakura-gumi, had long been known as the largest and most complete factory of its kind, and had been regarded as a model concern, such a reputation having been earned by the skilful management of the

late Mr. Katsuzo Nishimura and Mr. Seizo Osawa. Up to the date of amalgamation the four companies had been keen competitors, the rivalry being almost of a suicidal nature. The unwisdom of this competition, when the industry in Japan needed all the organisation and control it could receive, was apparent to men like Messrs. Nishimura and Osawa, and they induced the directorates of the four companies to agree to an amalgamation, which was effected. The result was satisfactory in the highest degree and the development of the industry under the control of the new Nippon Seika Kaisha was remarkable. The company has now become the first and most important enterprise of its kind in the Orient, and its works are producing shoes not inferior to any foreign make, and certainly entirely satisfactory to the shoe manufacturing world of Japan. In point of durability the company's products stand far above others, and for this reason, during the Russo-Japanese War, the company received a very large order from the Army and Navy, and after the war the Government awarded to the enterprise a

letter of merit for its valuable services to the Nation.

Apart from its wide local market, the Nippon Seika Kaisha is now receiving large orders for shoes from Russia, England, and all other parts of the world, showing that the article is at least the equal in point of cheapness, workmanship, and durability, of the shoes made elsewhere.

The Directors of the Japan Shoe and Boot Manufacturing Co., Ltd., are always active in the introduction of new machines, and improved methods of manufacture. Progress, and the ready adoption of new ideas are the order of the day in the works, and the result is seen in the high quality of the products of the plant. The equipment consists of 500 German shoe-making machines and 50 American machines, which give the factories a daily output of 5,000 pairs of shoes, the annual product of the works being valued at Yen 2,000,000. Of this large output a good portion goes to the Army and Navy, but as stated above, the company is now entering foreign markets. The Directors are noted for their keen interest in making

the Nippon Seika Kaisha the most successful enterprise of its kind ever inaugurated in Japan. They are not yet satisfied with the success that has attended their work, although the company has received every evidence, in the shape of honours and awards from expositions at home and abroad, of its sound standing and the excellence of its products. The driving force of the enterprise is Mr. Seizo Osawa, the President and founder of the company. This gentleman was born in 1850 in Chiba Prefecture. He entered the service of the Sakura-gumi in 1872, and rose to be Vice-President of that concern in 1897. For his services in bringing about the amalgamation which resulted in the present large company, Mr. Osawa was made President of the group. In 1907 he was appointed Chairman of the Shoemakers' Union, and he is also Vice-President of the Japan Leather Company. These honours are fitting in the case of a man who has done

so much for the industry. At the time Mr. Osawa became associated with it, shoe-making was looked down upon as an occupation somewhat inferior to others, but the situation is now changed and the business is one of the most lucrative in the country. The Japan Shoe and Boot Manufacturing Co., Ltd., is to be congratulated, as is also the entire industrial circle of Japan, upon having produced a business man of Mr. Osawa's great ability. The President of the company has very able assistance in the person of the Managing Director, Mr. Kakutaro Yamagishi. Mr. Osawa's undaunted spirit and his diligent fostering of the business, and Mr. Yamagishi's executive control of the organisation, together with the skill he exercises in the management of his large staff and many scores of workmen, are undoubtedly the two principal agencies contributing to the success of the company.

Since its inauguration the company has had to double its capital as the operations extended. The amount now stands at Yen 600,000, all fully paid up, and there is a legal reserve of Yen 150,000. In addition to the two principal officers referred to above, the officers of the company are as follows: Directors, Messrs. Toyochiyo Machida, Kinzaburo Kata, and Takuma Ito; Auditors are Messrs. Kihachiro Okura and Naoshi Nishimura.

THE KUHARA MINING COMPANY, LIMITED

ELSEWHERE the history and the scope of the operations of this powerful corporation are given at some length, but it is necessary here to make some reference to recent developments in the company's enterprise, mainly as they affect the rapidly developing shipping industry of Japan.



HEAD OFFICE OF THE KUHARA MINING COMPANY, LIMITED, OSAKA

The Kuhara Company is famous for its bold schemes, and it is not surprising, therefore, to learn that when the project of shipbuilding was given attention, the Kuhara interests should plan to launch out on the industry on a very large scale. A subsidiary corporation has been formed with a substantial capital, and a first-class site of close on to one million *tsubo* has been purchased at Kudamatsu in Yamaguchi Prefecture, near Shimonoseki. Mr. Fusanosuke Kuhara intends to make the works a second Vickers yard, after the model of the famous British concern. Not only will shipbuilding be carried on on a vigorous scale, but there will also be steel and machine works, second to none in Japan. As planned, the new enterprise will give rise to a new industrial town, and already all preparations have been made to provide quarters for the workmen, and to furnish various institutions for their betterment.

It is generally recognised that such an undertaking will create a new and very valuable industrial asset for Japan. Mr. Kuhara, though only thirty years of age, is

counted one of the wealthiest men in Japan. He is well supported by a highly qualified directorate and technical staff. Mr. Chozo Koike, former director of the political bureau in the Foreign Office, is General Manager for the company. The Director at Osaka is Mr. K. Takenouchi. The head office of the Kuhara Company is at No. 14 Nakano-shima, Nichome, Kita-ku, Osaka. (See also page 470.)

FURUKAWA & CO., LIMITED, OSAKA

As Tokyo has been for more than three hundred years the greatest political centre of Japan, Osaka has been almost since time immemorial the industrial and commercial metropolis of the Island Empire. This general statement applies equally to the metal trade as to all other departments of commerce and industry, and an examination of a geological map of Japan demonstrates at a glance the reason for this. Clustering around Osaka we find the principal mines of the country, and the ore derived from these workings has always been sent into the metropolis to be smelted and refined.

Thus in Osaka, in the shogunate era, many small works sprang up. The situation has not been materially altered with the progress of time, for even at present Osaka contains most of the big smelting and refining works, and it is noted also as the centre of the leading metal and mining corporation of Japan, namely, the Furukawa Co., Ltd., which has its main offices in the city.

The Furukawa Gomei Kaisha, however, was founded in Tokyo, because the famous Ashio Copper Mine is situated near the capital. The founder of the business was so successful that he became known as the "Copper King," and this appellation has with all justification been applied to the principals of the big corporation down to the present time. Nevertheless, Furukawa could not overlook the centre of the metal trade in the south, and consequently in the Spring of 1904 the Osaka branch was established to meet the great demand for metal which was stimulated by the Russo-Japanese War. Favoured by time and geographical situation, and directed by experienced men, under a broad and progressive policy, Furu-



FURUKAWA & CO., LTD.: S. S. "SANNO MARU" AND S. S. "KAIWO MARU," OWNED BY THE COMPANY

kawa & Co., Ltd., Osaka, have developed their business by leaps and bounds, as the following figures relating to the proceeds of sales from the date of foundation will show:

ments: (1) Metal Department; (2) Coal Department; (3) Electric Wire Department; (4) Ore Department, and (5) Department of General Affairs.



THE IMPERIAL CUSTOM HOUSE, YOKOHAMA

| YEAR | VALUE OF PRODUCT |
|------|------------------|
| | Yen |
| 1905 | 700,000 |
| 1906 | 900,000 |
| 1907 | 1,600,000 |
| 1908 | 1,700,000 |
| 1909 | 2,600,000 |
| 1910 | 3,700,000 |
| 1911 | 4,700,000 |
| 1912 | 8,400,000 |
| 1913 | 8,600,000 |
| 1914 | 7,500,000 |
| 1915 | 11,000,000 |
| 1916 | 28,000,000 |
| 1917 | 40,000,000 |

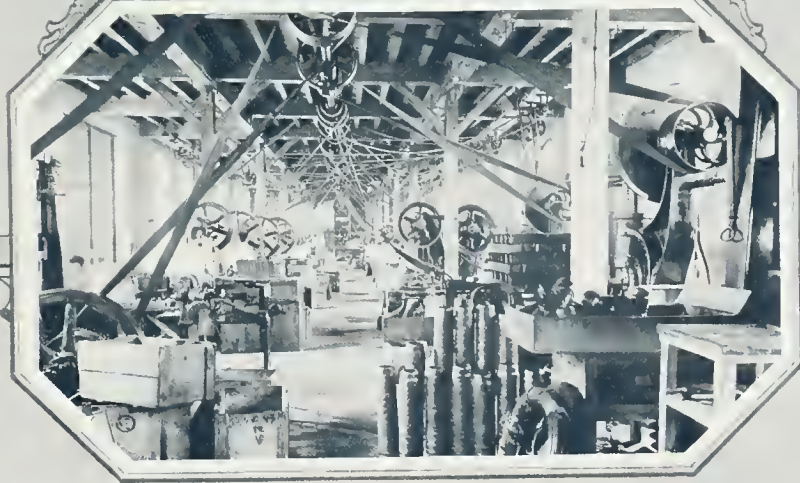
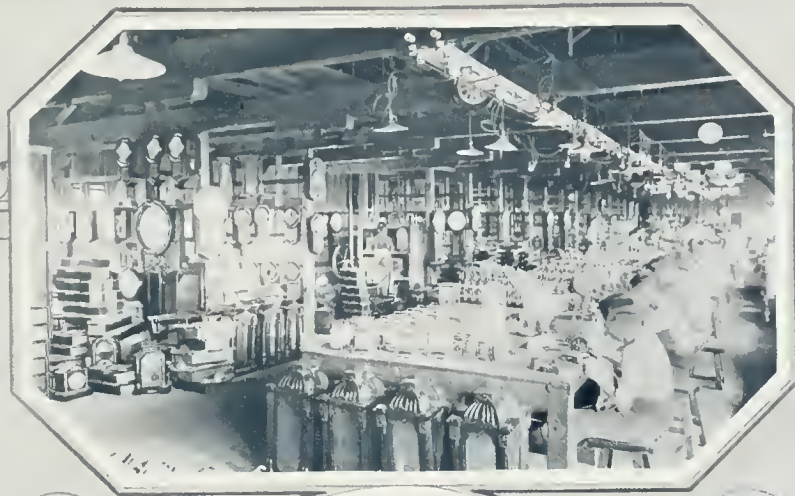
The Osaka branch of Furukawa & Co., Ltd., is at present under the able management of Mr. Reinosuke Suga, and everybody under him is working in perfect unison to produce the finest results for the corporation. The trading territory of the branch extends from Shizuoka and Toyama Prefectures in the north, to Okayama and Tottori Prefectures in the south, including the island of Shikoku. Besides the domestic trade, the branch makes purchases of every class of metal and metal products for all branches, representatives, and agents throughout the world, the most important of which are at Shanghai, Hongkong, Dairen, London, Petrograd, Hankow, Harbin, New York, Bombay, Calcutta, and Moscow. The organisation of the corporation is divided into the five following depart-

The principal lines dealt with by the Metal Department are every sort of metal, such as Furukawa cathodes, electro ingots "Marugata," best selected and other brands of Japanese copper; copper, brass, and yellow metal manufactures, as sheets, ribbon, rods, bars; other metals and their by-products; several kinds of bullion, pure silver, antimony, lead, tin spelter, and sulphate of copper. Besides dealing with all these metals, the department makes purchases of crude copper and ores for the Furukawa works at Amagasaki. These works are located about five miles from Osaka at the city of Amagasaki, and are under the management of Mr. Suga. They cover an area of about four acres and there are approximately two hundred and twenty employees. The principal product of the works is refined copper ingots, the output being about 15,000,000 pounds per annum. Besides copper refining, these works carry out lead refining and copper and iron wire drawing.

The Coal Department deals with the products of the Furukawa collieries, such as Shiogashira, Shakanoo, Dai-ni Shakanoo, Shin Shakanoo, Shimoyamada, and Yoshima. It also represents as sole agent the Taisho Mining Co., whose principal collieries are Arate, Sensui, and Muda. In the course of a year the department deals with over 2,000,000 tons of coal. Shiogashira and Shakanoo coal is of a black, bituminous nature, comparatively free of sulphur and caking well. Therefore these coals have a high reputation as the best for smithies,

locomotives, and iron works, their reputation having extended widely at home and abroad. Shin and Dai-ni Shakanoo and Sensui coals are best adapted for the production of gas and coke, while those of Shimoyamada, Yoshima, Arate, and Nakazuru are highly combustible, and consequently are reputed to be the best for various uses in factories. As the principal collieries owned by Furukawa are scattered over Kyushu Island, the Furukawa Gomei Kaisha founded a branch at Moji, one of the greatest centres of the coal trade in Japan, to supply coal to ships and to the factories around the city. The Moji branch, however, also deals in all lines, the same as the Osaka branch.

The Electric Wire Department deals with all classes of wires and cables produced by the Furukawa Nikko Works and the Yokohama Electric Wire Works. Furukawa & Co., Ltd., were the first to establish copper wire works in Japan, and by degrees the superior quality of its products was recognised throughout the domestic and foreign markets. As the demand grew tremendously the wire works, together with the copper refinery, had to be removed from Tokyo to Nikko, where a large factory was established and fitted throughout with modern machinery and appliances. Now the products of the Nikko Works are claimed to be equal in appearance and quality to those manufactured in Europe and America. These works furnish more than eighty per cent of the domestic demand and export a considerable amount to China and Europe. The principal articles which are manufactured at the Nikko Works are Furukawa bare wires and cables. The works are especially famous at home and abroad for their production of round and grooved trolley wires. This department also deals with the manufactures of the Yokohama Electric Wire Works, for whom Furukawa Gomei Kaisha act as sole agents. The Yokohama Electric Wire Works are the leading and pioneer manufacturers of insulated electric wires and cables in the Far East. The articles manufactured at these works are magnet wires, weatherproof wire and cables, flexible cords, thin vulcanised flexibles, standard vulcanised flexibles, rubber insulated wires and cables, lead enclosed and armoured insulated wires and cables, submarine cables, telephone and telegraph wires and cables, paper insulated cables, specially insulated wires and cables, cable accessories, and lead tubing. They are reputed to be of first grade quality and moderate in price. The majority of insulated wires used by the Japanese Army and Navy, the Communication Department, the Railway Board, and other public and private establishments, are manufactured by



K. HATTORI & CO.: SCENE IN THE TOKYO FACTORY — THE TOKYO SHOP — THE METAL PRESS DEPARTMENT

the Yokohama Electric Wire and Cable Works.

The business of the Ore Department of Furukawa, Osaka, may be divided into three parts: that is, first, the selling of the ore produced in Furukawa's mines, such as Innai gold and silver ore, Kune copper and iron pyrite ore, Daira zinc ore, and Furukura copper ore; second, the department acts as a broker of ore produced in the mines owned by other parts; third, the furnishing of material to the Midzushima Smelting Works. We must in this connection touch briefly on the Midzushima Smelting Works. These works were established on the island off the port of Tamashima, Okayama Prefecture, just after the Chino-Japanese War, and passing through several hands, fell into Furukawa's management in August, 1914. The amount of copper ore consumed by the works exceeds 200,000 tons per annum, and after the extension, now going on, is completed, the ore consumed will reach 300,000 tons.

There is also the Furukawa Shipping Office, Sakaye Machi, Kobé. This office

uses the ships owned and chartered by Furukawa Gomei Kaisha, and assists in facilitating the export trade of Tokyo and Osaka.

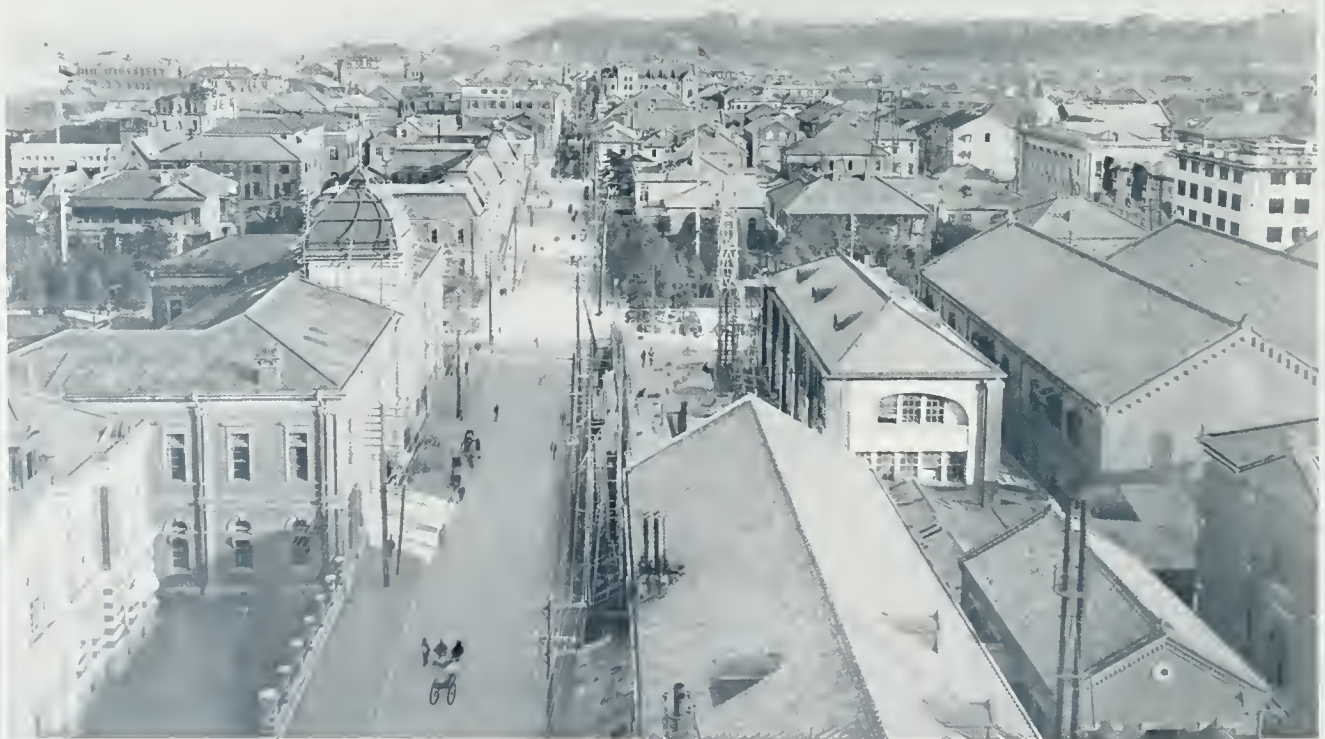
As mentioned above, the market for Furukawa Gomei Kaisha, Osaka, is extending all over the world, and consequently the prospect of the concern is the brightest possible. To meet the expected great development, a new up-to-date building is nearly completed on a site only a minute's distance from Umeda Station.

K. HATTORI & CO.

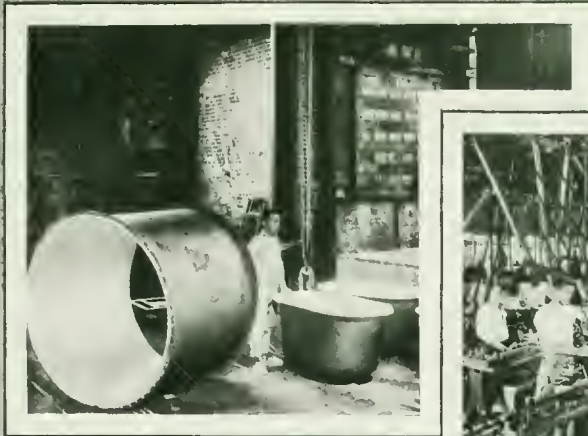
LIKE other countries, Japan furnishes many instances of the growth of large enterprises from very humble beginnings, and the history of its industrial development provides numerous examples of the rise to fortune and fame of men of the right spirit. Nevertheless, the story of Mr. Kintaro Hattori's rise from the position of an office boy to the head of one of the greatest clock and watch making concerns in the world, is not easy to parallel. The business of K. Hattori & Co. is well known to all visitors

to Japan, for there is no more attractive place in the famous Ginza of Tokyo than the great watch and jewellery shop which occupies a commanding position. The name of the firm is also well known throughout the East, but the origin of the business, and Mr. Hattori's own life story, are not so familiar to those who see to-day only the great success he has achieved. The famous Hattori watch and clock works are the creation of one man. As a boy, Mr. Hattori was so poor, and his father so helpless, that the future man of business could not be educated, and often went hungry, yet to-day he controls an industry that represents a fortune of Yen 12,000,000.

Mr. Hattori's father was a native of the Province of Owari, and in the Kei-o era came to Yedo, as Tokyo was then known. He failed in business, and was compelled to sell second-hand goods in the streets, plying a precarious trade in front of the spot where his son's famous shop now stands. So poor was the family that the father had to send his son out, without any education, to earn his living when he was twelve years



YOKOHAMA VIEWED FROM THE MEMORIAL TOWER, LOOKING TOWARD THE BLUFF



TOKYO GAS AND ELECTRIC INDUSTRIAL CO., LTD.: THE FOUNDRY—THE MACHINE SHOP—BIRD'S-EYE VIEW OF THE FACTORY—A SCENE IN THE LAMP-MAKING SHOP—WORKMEN ENGAGED AT THE FINISHING AND SORTING OF LAMP PARTS

of age. The boy was sent as office boy, or apprentice, to a foreign goods store at Hachikan-cho. Young Kintaro Hattori determined to improve his position and help his father. Opposite where he worked as office boy there was a watchmaker's shop. The future successful business man realised that it required a great deal of capital to open a foreign goods store, but little was required, beyond skill at his calling, for a man to be a watch repairer. That he decided to be, and he spent all his spare time with Kobayashi, the watchmaker. At the age of fifteen the boy left the foreign goods store and entered the service of Kameda, a watchmaker of Kamimaki-cho, Nihonbashi-ku. There he was first ordered to act as a child's nurse, and when he had leisure he was allowed to learn to repair watches. At night he studied Japanese, and endeavoured to educate himself. He gradually made some progress, but the difficulty of his struggle may be imagined from the fact that once, when he needed a book costing about 25 sen, neither he nor his father could provide such a paltry sum. The intensity of the struggle only increased the boy's determination to make headway. He worked hard at repairing watches. From the ages of eighteen to twenty-two he saved by dint of hard work and self-denial the small sum of Yen 150, and this he invested in a small shop at Unemecho, Kyobashi-ku. The store was tiny, the business was new, the customers were few, and the earnings small. Accordingly, Mr. Hattori went round at night visiting the street sellers at Kakigaracho and Ningyocho, and such places, and bought broken old watches which he repaired and sold. In this way he worked night and day to save the sum of Yen 1,200 in two years. Unfortunately a fire broke out in the neighbourhood of Mr. Hattori's store in 1883, and it was destroyed. Not discouraged by this he again started at Kobikicho Gochome, and worked harder than ever. In 1887 Mr. Hattori removed to Ginza, his business having grown in a fairly satisfactory manner. A temporary workshop was started in May, 1892, at Ishiwaramachi, Honjo, and the trade name of Seikosha was adopted, which afterwards became famous. The locality was, however, crowded with houses, and Mr. Hattori was not permitted to install a motor engine for his machinery, so the following year the factory was removed to Yanagishimacho. Here Mr. Hattori was able to install an eight horse-power engine, and went in for the manufacture of clocks. The demand for the Hattori products began to increase, and presently the factory was making clocks and exporting to China. More modern machinery being necessary,

Mr. Hattori imported an automatic plant from Europe and America, and used it, together with machines of his own design. The manufacture of watches was commenced in 1895, and the next development, a few years later, was the making of nickel alarm clocks.

To follow the history of the Hattori Company farther is hardly necessary, because it has been a continuous triumph of success, the works expanding year by year in keeping with the development of trade. Mr. Hattori's enterprise has practically meant the stoppage of the importation of foreign-made clocks, especially the cheap German article. He has made Japan patronise another home industry by turning out clocks and watches of the highest grade of workmanship, and he has built up a considerable export trade with India and China. In 1916 the number of watches and clocks turned out at the Hattori works was over 800,000. In 1899 Mr. Hattori visited Europe and America to study the industry in which he is such a prominent leader. This visit was repeated in 1906 and as a result of it the most modern machinery was imported and the works so extended and improved as to permit of the carrying out of the most delicate work on the widest possible scale. More than 1,500 workmen are engaged, and the office and sales staff comprises over 100 hands. Mr. Hattori is now planning to maintain his export trade after the declaration of peace. Expansion while the war is on and while the import of such materials as must come from Europe and the United States is rather difficult, but the Hattori watches and clocks are so popular wherever they are known that it is hardly likely that there will be any falling off in the demand. There is more likely to be an increase under the easier conditions of peace time. Mr. Hattori is now fifty-nine years of age, and all who know the hard struggle he had in his early days heartily congratulate him on the success of his great enterprise.

TOKYO GAS AND ELECTRIC INDUSTRIAL COMPANY, LIMITED

THIS enterprise is one that covers a far wider field of industrial manufactures than the title of the company implies, the original purpose of the Tokyo Gas and Electric Industrial Co., Ltd., having been considerably broadened in keeping with the remarkable economic development of Japan since the outbreak of the war. The company was organised in August, 1910, by the late Mr. T. Tokuhisa, formerly Governor of the Saga Prefecture, assisted by some of the leading financiers of Tokyo. At this time there was a strong development in the gas industry

in Japan and the promoters of the company had in view the manufacture of gas mantles, fittings, and other apparatus, as well as contracting for the erection of gas-making plants and works, etc. Before the foundation of the new enterprise could be consolidated Mr. Tokuhisa died, and the undertaking came to a standstill. Mr. G. Matsukata, fifth son of the famous Genro Marquis Matsukata, was unanimously elected President of the company in succession to Mr. Tokuhisa, and devoting himself energetically to the furtherance of the company's interests, he overcame many difficulties and put the industry on a sound basis. Mr. Matsukata introduced new departments, such as, for instance, the manufacture of enamelled ironware, and proceeded to open up new markets for the company's products, both at home and abroad. From that time the company has made slow but steady improvement. Its operations have been widely extended, as will be shown later. The quality of its products has been improved, and the excellent reputation it has won has brought its goods into great demand for home use and also in the United Kingdom, America, China, India, and the South Seas.

The Tokyo Gas and Electric Industrial Co., Ltd., possesses five factories at Honjo-ku, Tokyo. No. 1, where gas mantles are made, covers 192 tsubo. The power is electricity, conveyed to 33 different machines. Employment is given in this factory to two expert engineers and 166 hands, the majority of them women. The second factory, or machine shop, covers 531 tsubo. Motors developing 122 horse-power operate no fewer than 472 machines, and the staff comprises 27 engineers, supervising the work of 549 men and 114 women. The enamelled ironware factory extends over 377 tsubo and employs 94 men and 6 women. The fourth factory, for finishing gas meters, covers 80 tsubo and employs 2 engineers and 36 labourers. In the fifth factory, which is used for galvanising work, and covers 150 tsubo, 1 engineer and 53 labourers are at work. The gas mantles turned out by the company have won high distinction in all the markets of the world. The defect with most mantles is that those for strong candle power consume much gas and still are not durable, while those that are comparatively durable are not adaptable to high candle power. This difficulty is claimed to have been overcome by the company, which is turning out a mantle that is not only durable, whether made of silk, ramie, or cotton, but is adaptable for stronger candle power than those of any other make. In the production of enamelled ironware the Tokyo Gas and Electric Industrial Co., Ltd., is without rival



GENERAL VIEW OF THE PLANT OF THE YASUDA NAIL WORKS (YASUDA SEITEI JO), AT YEDAMITSU, NEAR MOJI.
(NOTICE THE NUMBER OF INDUSTRIES SPRINGING UP IN THIS DISTRICT)

among the many makers of this ware in Japan. The industry has been developed on a very large scale by the company, which is especially noted for its acid-proof and heat-proof goods, and for its baths, tank-coils, cast pans, etc. With the development of the chemical industry of Japan this department of the company's activities has a very bright future. Gas meters are being made in large quantity, and it is evidence of the quality and accuracy of the company's product that the Central Weights and Measures Testing Bureau use the Tokyo Company's meter as a standard. The machine shop is among the best equipped in Japan, as also its labour is among the most skilled. Recently the Imperial military authorities were astounded to find that an order placed with the company for over a thousand ammunition-testing appliances was turned out in less than two months.

The success which has been achieved by the Tokyo Gas and Electric Industrial Co., Ltd., has led the directors to embark on a much wider scheme of manufactures. The capital of the company is to be increased, and the plants extended to enable the factories to turn out motor cars, meters, and measuring appliances of various kinds, and military ordnance requirements. The automobile industry is to be taken up in different stages, the idea of the company being to turn out a car suited to local needs, and to educate its workmen along these lines: First, all parts will be imported from abroad, and will be

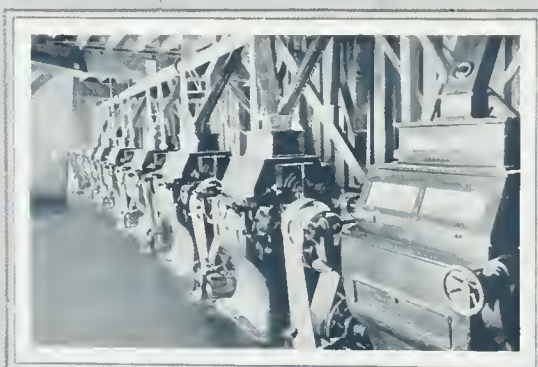
assembled in the factory and sold as complete cars; second, the raw materials for parts will be imported and will be finished in the factory and from them the cars will be constructed, and third, all material will be produced in Japan, so that a car will be made complete. The first productions will be freight trucks and military automobiles. There is urgent need in Japan for freight trucks and military machines, and it is certain that the company's enterprise in supplying the deficiency will meet with the hearty approval of the Government and the Military Department. A bright future also lies before the industry of making various meters. Japan is so rapidly developing her economic independence in other lines, particularly in shipbuilding, locomotive construction and so on, that the company has decided that many accessory parts, such as meters and gauges, now almost entirely imported, can be manufactured locally with profit. Already the ordnance department of the company is in operation, but no new capital has as yet been put into it. The company has merely taken advantage of its surplus plant and power to enter upon munition making, etc., as a side line. Orders have been received from Russia and quite an extensive trade has already been developed. It is felt, after the lessons of the great war, that Japan can very well do with some private manufacturing plants to supplement the work of the national arsenals, and the Tokyo Company has entered on this work with a view to wide expansion in the not distant future.

It is generally recognised that the enterprise of the Tokyo Gas and Electric Industrial Co., Ltd., is a model one in many respects. The aim of President Matsukata is to avoid useless competition with other concerns, but to supply deficiencies in the general industrial field, or to support Government enterprise with private plants. For this reason the Tokyo Company will rarely be found duplicating the products of other factories. The whole plant is run with the idea of being available for national needs at any time. So far, the company has succeeded financially to a satisfactory extent, and the directors have no doubt of substantial development after the war and the maintenance of dividends at 20 per cent per annum. The head office of the Tokyo Gas and Electric Industrial Co., Ltd., is at Narihira-cho, Nakanogo, Honjo-ku, Tokyo. It is to remove presently to Otemachi, Kojimachi-ku, Tokyo, and the branch factory is to be built in Omori (a suburb of Tokyo).

YASUDA NAIL WORKS

THE history of the Yasuda Nail Works is an interesting record of difficulties overcome, and of success achieved in the face of most discouraging conditions. The scheme first occurred to Mr. Yasuda in 1894, when, as a result of the Sino-Japanese War, the country's trade returns presented an unusually unsatisfactory balance.

The situation, redundant with opportunities to a far-sighted man, appealed at once



NISSHIN SEIFUN KABUSHIKI KAISHA (NISSHIN FLOUR MILLS, LIMITED): VIEW OF THE BIG MILLS AT TATEBAYASHI — SECOND FLOUR MILL AT MITO — THE LABORATORY — INTERIOR VIEW OF THE MILL AT TATEBAYASHI — THOUSANDS OF SACKS OF FLOUR IN ONE OF THE GODOWNS — ANOTHER INTERIOR VIEW OF THE MILLING PLANT AT TATEBAYASHI



THE DAIRI FLOUR MILL CO., LTD.: VIEWS OF THE MILL AT DAIRI, NEAR MOJI — BUSY SCENE IN DAIRI OFFICE

to Mr. Yasuda both from a commercial and patriotic point of view, since it was obvious that whatever could be done to correct the balance of trade, even to a small extent, would be useful, and probably profitable.

Wire nails were at this time being imported to Japan at an average rate of 220,000 kegs per annum, there being no manufacturer of this commodity in the country. Mr. Yasuda decided to install a factory to produce at least 50 per cent of this quantity, and in 1895 despatched a representative to Europe to make an exhaustive study of the industry. This task did not, however, prove easy of accomplishment, as neither European nor American manufacturers were at all attracted by the possibility of foreign production and the consequent loss of an important market; hence the representative found it impossible to obtain admittance to the factories. Nothing daunted, Mr. Yasuda purchased 4,000 *tsubo* of ground in 1896 and building operations proceeded with such celerity that in September of the year following the factory was complete. An American nail-specialist was engaged to set up and install the machines, which were completed under his direction by November. In the Spring of 1908 the first products of the factory were placed on the market, but it was only then that the real obstacles began to accumulate. Consumers long accustomed to the foreign product were extremely skeptical and, no doubt with reason, criticised the Yasuda Nail as not up to the foreign standard. Again, residents in the neighbourhood of the works, unaccustomed to the proximity of a big manufacturing plant, and the natural disadvantages in the form of noise, waste deposits, etc., were quite naturally moved to very vigorous opposition.

Despite this generally unsatisfactory situation—which, however, improved somewhat with time—operations continued and an addition was made to the works which necessitated the installation of an additional 200 machines. Within a week of the completion of the extensions the factory caught fire and was completely demolished. It speaks wonders for the determined spirit which actuated the founder that by May of 1901 a new factory, complete in every respect, stood upon the ruins of the old, and work proceeded.

It was now that the foreign manufacturers began to take a hand in the opposition. A heavy duty was placed on all the raw material exported to Japan for the manufacture of nails, with the result that the factory was quite unable to compete, and was forced to close down in 1902. In 1906 the Government made known its decision to manufacture wire-rod for local consumption at reasonable rates,



WASHING DAY ON THE TONÉ RIVER

and it may best be imagined with what unmixed satisfaction this intelligence was received by the company.

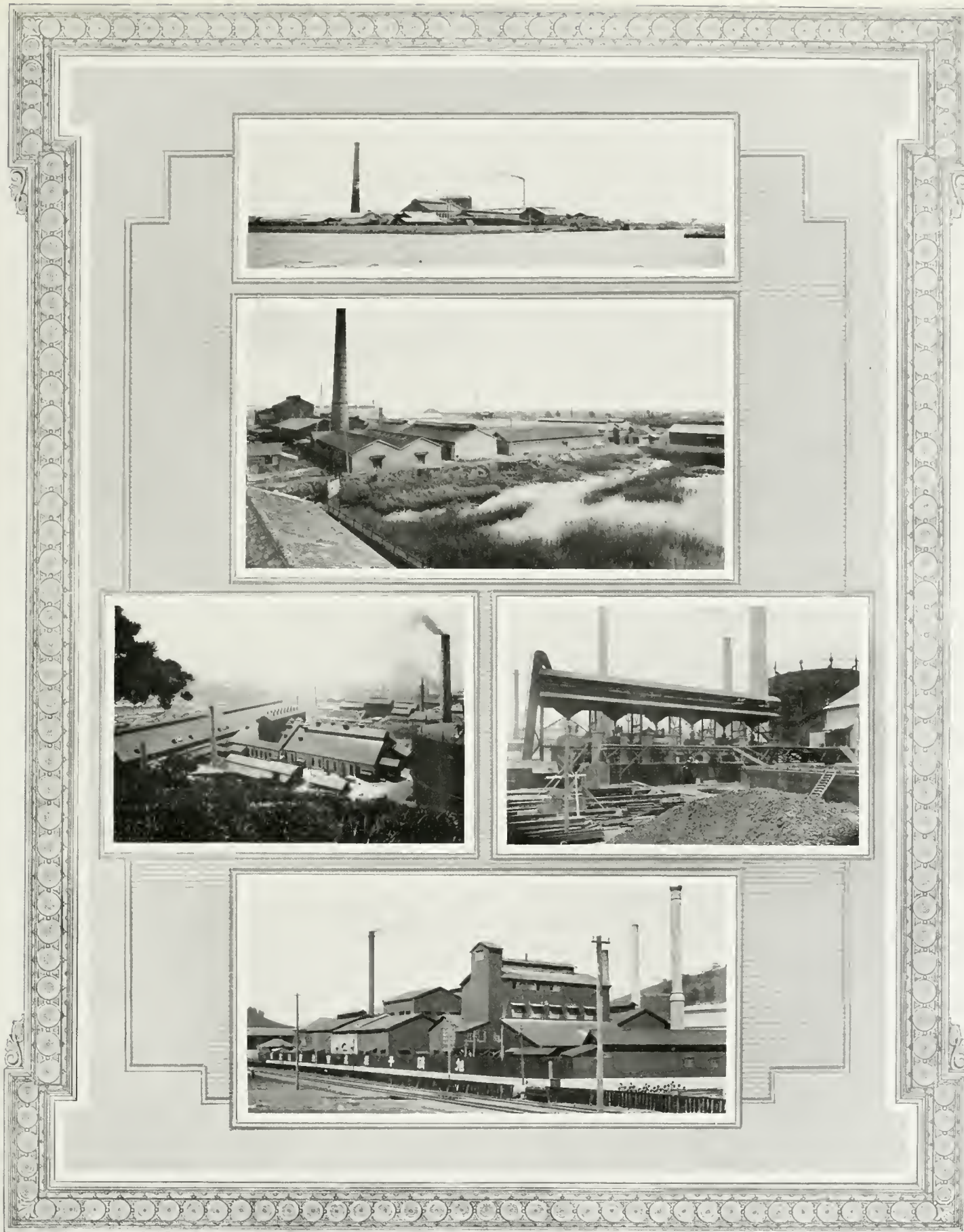
The plant was rapidly overhauled and in July, 1907, abundantly supplied with wire-rod, recommenced operations, and this time with considerable success. In 1911 a branch factory was completed at Yedamitsu, Kyushu, and within a year this was also working hard to meet the ever-increasing demands. Mr. Mayeda, the General Manager of the works, was appointed in the dark days of 1897 to the position which he still holds, and the fact that with Mr. Z. Yasuda, the President, he has successfully guided the industry to its present prosperous condition, should point to future development and success as a foregone conclusion.

THE NISSHIN FLOUR MILLS, LIMITED

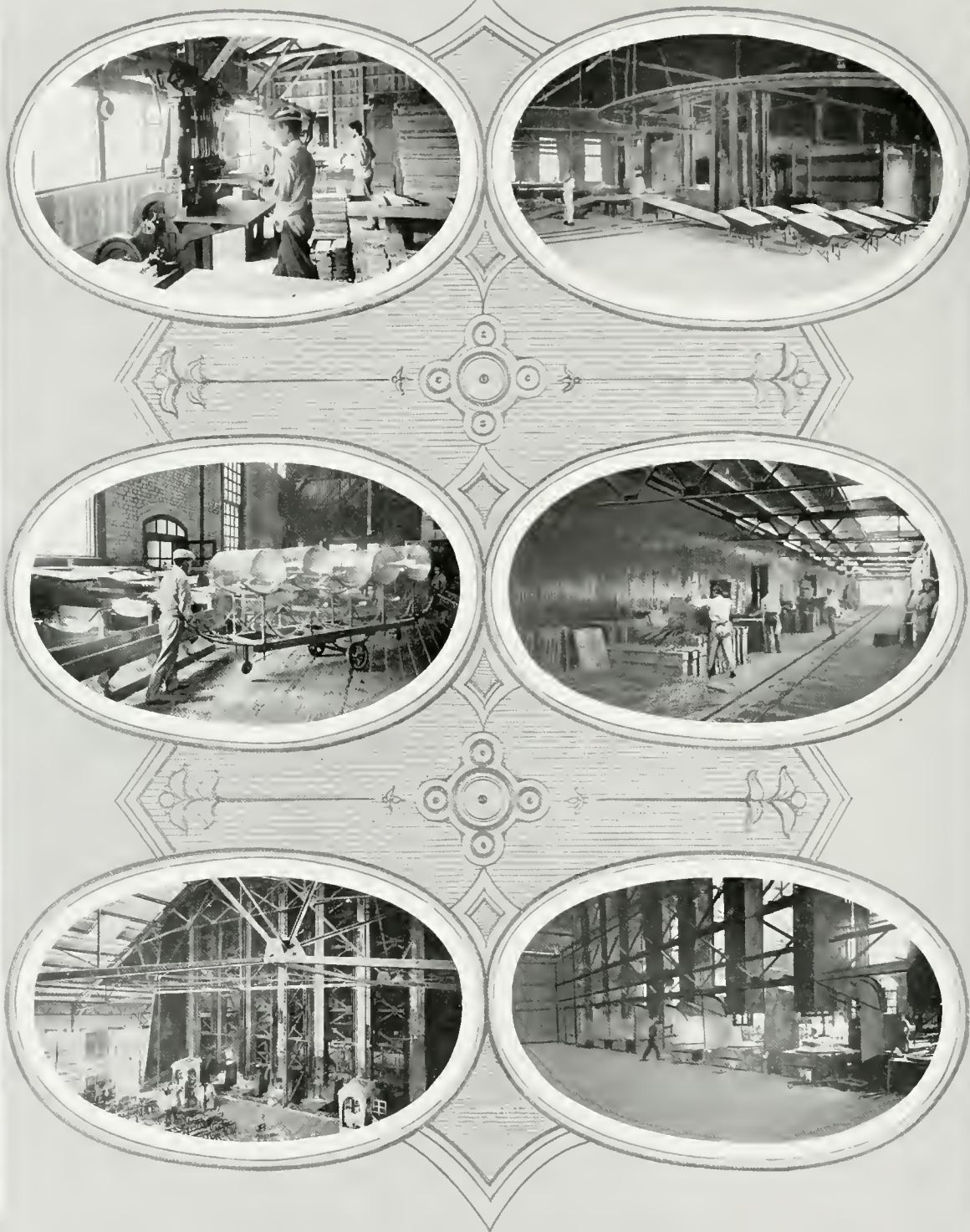
It is only of recent years that flour-milling has been conducted on any large or modern scale in Japan. Milling in the old days was done in a crude way, water mills in the country turning out flour of an inferior quality, and when the demand arose for white bread, foreign flour was imported to the value of some Yen 10,000,000 annually. In 1900 one of the first modern mills was erected at Tatebayashi town, Gumma Prefecture. The initial capital was Yen 60,000, afterwards increased to Yen 600,000. This mill was owned by the Tatebayashi Flour Mill Company. In March, 1907, a company was promoted in Yokohama, with a capital of Yen

1,000,000, and a mill was started at the port. This was the inception of the present industry of the Nisshin Flour Mills, Ltd., the biggest concern of its kind in Japan. Work on the Yokohama mill was completed in January, 1908, and 2,000 bags of flour were produced daily. In the meantime, however, the Yokohama company had bought out the Tatebayashi Company, and the capital of the joint concern was made Yen 1,600,000. At the same time the head office of the company was removed to Tokyo. A year or so later the Dai Nippon Flour Milling Co., Ltd., was also brought into the amalgamation, and its plant at Utsunomiya was added to the productive capacity. With these amalgamations the Nisshin Flour Mills, Ltd., was fairly started as a big industrial organisation, and since then the company has extended in all directions, until to-day it owns mills at five centres, and has a very large output. In December, 1917, the capital of the concern was raised to Yen 4,000,000. The factory at Nagoya was completed in October, 1914, and the manufacture of flour under the German system was started there, the other mills using the American system. Since the outbreak of the war, the business of the company has increased to such an extent that the capital had to be increased to Yen 4,000,000, as stated above, and new plants were installed. At present the Nisshin Flour Mills, Ltd., are operating mills at Tatebayashi, Yokohama, Utsunomiya, Nagoya, and Mito. These plants are running day and night, and have a production of 16,000 bags of flour a day.

All these plants are quite modern in construction and in system of operation. The mills are of the Allis-Chalmers pattern, and are driven by electricity. In facilities for handling and discharging of incoming wheat shipments and outgoing flour and other products, the Nisshin Flour Mills, Ltd., are strictly up to date. The Mito Mill, for instance, has railway tracks laid to the mill doors, and the wheat is automatically weighed as it leaves the trucks, and is handled by electric cranes, making delivery very rapid and economical. This mill is in charge of Mr. I. Morita. The mills, as a whole, are of wood or stone, and generally are five stories high, with large two-story godowns attached for storage purposes. About 300 hands are employed in addition to the technical staff, chemists and others. The company pays salaries amounting to Yen 155,619 per annum, while the wages bill runs to Yen 103,192. Working at full capacity the company can turn out 5,200,000 bags of flour a year, and 1,200,000 bags of bran. Prior to the war the wheat was mainly imported from America and Australia, but that trade has now been suspended and the company has had to



ASAHI GLASS COMPANY, LIMITED: NO. 3 FACTORY AT TSURUMI — THE COMPANY'S PRIVATE FIRE BRICK FACTORY — NO. 2 FACTORY, NEAR MOJI, KYUSHU — IMPORTANT MOND GAS-PRODUCING PLANT INSTALLED IN CONNECTION WITH THE COMPANY'S WORKS AT KYUSHU — THE COMPANY'S PRIVATE SODA FACTORY



ASAHI GLASS COMPANY, LIMITED: (LEFT TO RIGHT) BOX-MAKING DEPARTMENT — RAW MATERIAL READY FOR THE FURNACE —
 TRANSFERRING GLASS CYLINDERS TO FLATTENING OVENS — PACKING DEPARTMENT — BLOWING DEPARTMENT
 — LADLING MOLTEN GLASS FROM FURNACES

develop other sources of supply. The output of the mills goes a long way to meet the domestic demand for flour, but in addition a large export trade is being done with China, Manchuria, the Straits Settlements, the Philippines, and the South Sea Islands. The company has been very successful from a financial point of view. There was a temporary set-back in the market when it was rumoured that Germany was suing for peace, but since then contracts for export have been stronger than ever, and the supply of flour is not equal to the demand. Prices of flour rose in keeping with the increase in the price of rice, and bran and other by-products followed.

The balance sheet available shows that the Nisshin Flour Mills, Ltd., realised a profit for the half-year of Yen 234,170.10. This, together with the sum of Yen 79,115.16, brought forward from the previous term, was distributed as follows: Added to reserve, Yen 15,000; to equalisation of dividends fund, Yen 50,000; to staff pension fund, Yen 5,000; bonus, Yen 23,000; dividend at 15 per cent per annum, Yen 98,720; special dividend (3 per cent), Yen 24,680; carried forward, Yen 96,885.26. The head office of the Nisshin Flour Mills, Ltd., is at Koamicho, Nihonbashi-ku, Tokyo. The principal officers of the company are: Directors, Messrs. K. Nezu (President), T. Shoda (Managing Director), K. Kimura, K. Matsushita, T. Nagara, T. Ishijima; Auditors, Messrs. K. Mogi, N. Aoki, and J. Muramatsu.

DAIRI FLOUR MILL, LIMITED (KABUSHIKI KAISHA DAIRI SEIFUNSHO)

WHATEVER the detractors of Japan and the Japanese business man may assert, they can not but recognise the universal spirit of enterprise which dominates the country to-day, and which has done so much to enable the Japanese to grasp the opportunity presented by the Great War.

From the various articles descriptive of the many huge undertakings of the firm of Suzuki & Co., appearing in different sections of this volume, it will be seen that there are few departments of trade and industry in which they have not important financial interests.

The Dairi Mill is but one of similar enterprises operated by the company; but, since it is the largest and perhaps the most successful in Japan, some details will be of interest. Located at Dairi, a few miles from the port of Mogi, the fine six-story white brick main structure of the mill, with its numerous well constructed godowns, power station, macaroni and vermicelli factory adjoining, looms up imposingly on the shores of the Inland Sea, where it narrows to approach the ports of

Mogi and Shimonoski. Together with the Kobé Steel Works, the Dai-Nippon Seito K. K., the Imperial Brewery, the Dairi Electric Wire Works, and other adjoining enterprises, it can not but symbolise for the new arrival the Spirit of Modern Japan.

The Dairi Flour Mill was established in 1911 and was successful from the inception to such an extent that by 1915 the demand was well ahead of the output. Catastrophe overtook the mill at this time, however, in the form of fire which practically gutted the main building and a number of the warehouses. This was regarded more as a blessing in disguise than any depressing misfortune, for before the end of 1916 a new mill, in all respects better and of greater capacity, stood upon the ruins of the old. The present mill covers an area of 350 *tsubo* and the numerous warehouses 5,000 *tsubo*. There is a small macaroni and vermicelli factory occupying 200 *tsubo*, whilst the power plant, boiler house, etc., generating 1,500 horse-power, and other miscellaneous structures cover an additional 500 *tsubo*. The machinery and installations are all imported from England and America and include all the latest devices and most approved types of flour milling machinery.

A considerable portion of the raw material is of local production, but large quantities are also imported from Manchuria and Chosen. The total quantity of grain annually milled represents 3,474,100 bushels, and the product is 4,270,000 bags of flour, apart from by-products. The total value of the output, including by-products, is valued at Yen 16,000,000.

It is an interesting fact that the Blue and Red Diamond Flours, the special product of the Dairi Mill, find a ready market throughout the Far East and, also, so far afield as Europe and South America.

If any further guarantee of quality represented by the demand is required, the company can show many gold and silver exhibition awards as a tangible proof of the great and universal success achieved, but they regard as more important the Imperial command, with which they were honoured in 1917, to supply the Japanese forces during the annual manoeuvres.

ASAHI GLASS CO., LIMITED, TOKYO

MANY attempts have been made to manufacture window glass in Japan, but prior to the war with very little success. The Asahi Glass Company, Ltd., was founded in 1907 with this object, and after a very considerable loss of time and heavy experimental expenditure succeeded in manufacturing glass of an inferior grade.

However, steady progress was made and by 1914 the company had succeeded in producing a very good quality of window glass which found a ready sale. As if to make amends for the difficulties of the past, the total importation from countries like Belgium, whose previous hold on the trade almost amounted to a monopoly, was completely cut off, with the result that the Asahi Company was immediately inundated with orders from all parts of the world.

The company has three factories located at Tobata and Yedamitsu (Kyushu) and Tsurumi, near Tokyo, each producing 240,000 cases annually, and a smaller factory at Amagasaki, near Kobé, with an annual production of 120,000 cases. Stated in other terms, the four factories combined at present manufacture about 85,000,000 square feet of window glass in five grades, as is the case with the Belgian glass. The silica sand is imported from Indo-China. Independence, as far as raw materials are concerned, is achieved by the company running its own large factories for the supply of soda and fire bricks.

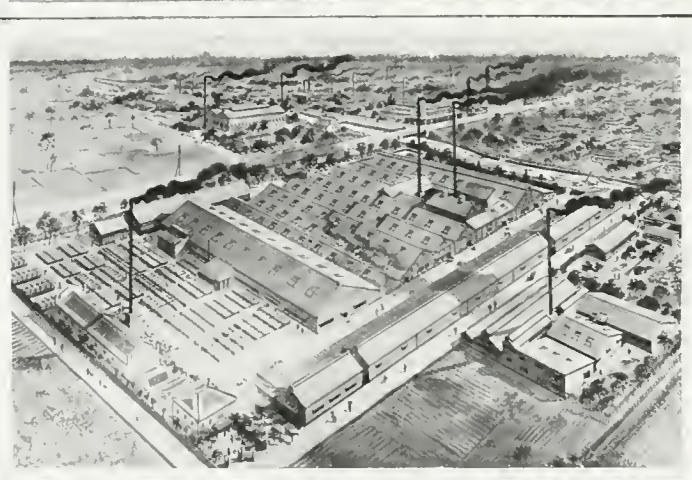
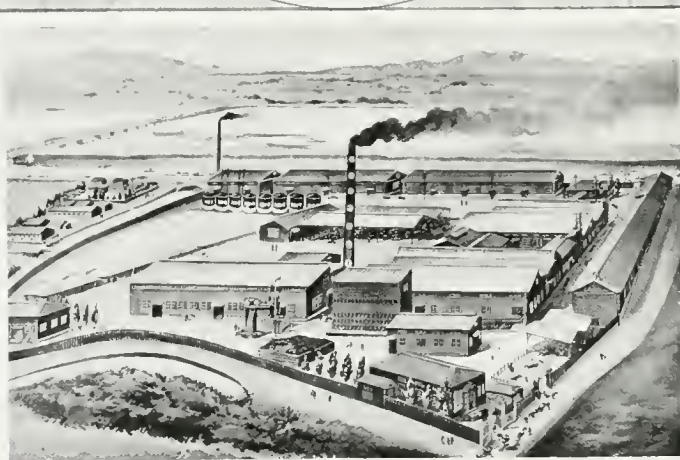
Important experiments are now being carried out, too, for the manufacture of plate and show glass of every description. A considerable export trade is at present being done to China, India, Australia, South America, and South Africa, through the following firms: Tamate & Co. (Japan, Formosa, Korea, and South Seas), Mitsubishi Co. (China and Vladivostok, Europe and Africa), Nosawa Gumi (Australia, India, South America, Canada, and Siberia).

The President of the company is Toshiya Iwasaki, Esq.

NIPPON PAINT MANUFACTURING CO., LIMITED

AN exceedingly interesting story of the origin and development of the paint manufacturing industry in Japan is to be found in the history of the Nippon Company, which is the premier concern of its kind in the Empire. Moreover, the story is indicative of the energy and determination which so many of the pioneers of Japan's secondary industries have displayed in overcoming great difficulties, not the least of which have been popular prejudice in favour of imported articles. The history of the Nippon Paint Manufacturing Company, Limited, is practically the entire history of the industry in Japan, and therefore there is every justification for giving it at fairly full length.

In 1874 two courses of working and refining were provided in the Kaisei-gakko, the present Tokyo Imperial University, with a view to the diffusion of the science of manufacturing throughout the country. Several



MR. T. TASAKA, PRESIDENT, NIPPON PAINT MFG. CO., LTD.: TWO GENERAL VIEWS OF FACTORY OF NIPPON PAINT MFG. CO., LTD.
AT MINAMI-SHINAGAWA, TOKYO



VIEW OF OSAKA, SHOWING THE TOSABORI-GAWA RIVER WITH THE YODOYA BRIDGE IN THE FOREGROUND

foreigners were engaged as instructors. Among the assistant professors was Mr. Haruta Motegi, who, conceiving the idea that paint manufacturing might be made a native industry, established a private refinery on a small scale, and in the intervals of his official duties devoted himself to the study of the subject. He was assisted by his brother, Mr. Injiro Motegi, who attended to the preparation of zinc white and one or two other useful pigments. In the course of this work he had to make the chemicals and provide the materials for furnace-building, as these latter could not be purchased in the market at the time. Despite the difficulties with which the project he had in mind was beset, he recognised the commercial possibilities which lay before him and his brother, if success should attend their efforts. Mr. Haruta Motegi unfortunately died at an early age, leaving his scientific researches uncompleted. Nothing daunted, Mr. Injiro Motegi, with firm energy, pushed on with his work, determined to carry out his brother's will, until at last, in 1881, he succeeded, after seven years of hard and at times discouraging effort, in finishing his studies and in organising the Komei-Sha. This small syndicate was formed with the help of two or three persons who were sufficiently interested in the work to invest the necessary capital in the small initial enterprise. A factory was established at Mita, Tokyo, and the manufacture of paints was entered upon. In those days, however, both the Government and the people were under the fascination of imported

goods, and looked askance at any attempt to meet needs by local effort, as they also hesitated to buy local products, so that both manufacturer and merchant experienced many discouragements in trying to carry on business. While the public in general took no notice of the new industry which the Komei-Sha, as the concern was then known, had given to Japan, Mr. Heikichi Nakagawa, painter-in-chief of the Navy Department, realising the importance of the new enterprise, with the permission of Count Kawamura, the then Minister of the Navy, every day visited the works in his spare hours and directed the process of paint manufacture. At his suggestion the new factory turned out a very useful kind of composite paint intended for warships. By such friendly interest the company was encouraged to proceed on its precarious career as a manufacturer in a new line of industry. Under such powerful patronage some progress was being made, when unfortunately, in June, 1885, the company's works were entirely destroyed by fire. Not discouraged by this blow even, the directors set to work to reestablish the industry. In the following year they had collected enough capital to make a fresh start, this time with a good deal of experience to help them, with a new kind of furnace and better methods. The work of the company had by now become better known and with the demand increasing for paints, the Komei-Sha turned out an annual production worth Yen 30,000. This success so delighted the directors that the occasion was celebrated with a feast. In 1886, when the Imperial

Palace was rebuilt, the Komei-Sha presented the Imperial Household Department with its paints, and afterwards the gift was acknowledged by the presentation of a silver cup to the company. Then the Komei-Sha went in for a good deal of propaganda to popularise its goods, making displays at various exhibitions, and on every occasion, in competition with similar goods, the paints of the Komei-Sha were adjudged to be the best of their kind, and certainly not inferior to the imported article. The long fight for public recognition was practically won, and the business showed a sudden increase. In the war of 1894-5 the demand for the paint was so great that, though the plant was worked to its utmost capacity, the demand could not be met, and so the Komei-Goshi-Kaisha was organised, with a capital of Yen 100,000. The works were removed from Mita to Shinagawamachi, Ebara-gori, the general equipment and plant being renewed at the same time. With an increased capacity the company had to look for new outlets for its paints, and with the idea of enlisting the interest of the Railway Board, in addition to the Navy Department, an application was made for the use of the locally made article for railway work. This was refused, the fact being that the railway authorities had not then heard of the existence of the company and its works. The railways were then asked to use the paint for repair purposes, and this met with the reply that the department was not bound to test the Komei Gomei Kaisha product at the risk of damaging the

cars! This prejudice was broken down three years later, after persistent effort, and the paint was found to be quite satisfactory. The same result was experienced in every new direction where the company could overcome the demand for the imported article, and in all cases it was admitted after fair trial that the locally manufactured paint was in no way inferior to the foreign products. Such a history will indicate what a difficult task it was to establish and popularise a local concern, but after the ground had been well broken, the Komei Goshi Kaisha found its path easy and progress was rapid. In 1897, not long after the establishment of the *gomei kaisha*, or limited partnership, the directors doubled the capital to Yen 200,000, and organised a joint-stock company under the present name of the Nippon Paint Manufacturing Company, Limited.

Further rapid progress was made and honours and decorations came readily to the company for the excellence of its products. The capital was again increased to Yen 500,000 in 1905, and works were established also at Osaka. During the war with Russia the special services rendered by the company were so highly thought of that a certificate of merit was conferred on it by the Bureau of Decorations. The press of orders became so great that in 1907 the capital was increased to Yen 1,500,000, and the works were further enlarged. In 1911 the founder of the company, Mr. Jugiro Motegi, had conferred upon him the Medal for Merit with a green cordon, the Imperial decree accompanying the award reciting at length, and in the highest terms of praise, the splendid work which he had done for the manufacturing industries of Japan.

In 1917 the company received the sanction of its proprietary for its scheme of increasing its capital from Yen 1,500,000 to Yen 5,000,000, by the issue of 60,000 new shares to the original shareholders and the rest to the company's employees or the general public.

In conclusion, it need only be said that the Nippon Paint Manufacturing Company, Limited, is in a highly flourishing condition to-day, and its annual production is always on the increase. The works have a capacity for an annual output valued at Yen 8,000,000, and though the product was once thought so little of in official circles, the company is now supplying paints to the Navy, the Government Railways, the South Manchuria Railway, the Imperial Government arsenals, the Nippon Yusen Kaisha, the Osaka Shosen Kaisha, the Mitsubishi Dockyard, the Kawasaki Dockyard, and to scores of other great enterprises, all of which, it

may be taken for granted, have tested to the full the quality of the product and have found it to be all that is desired. Not only are the ever-growing domestic demands practically all met with the products of the company, but exports are also made extensively to India, Russia, Australia, and the South Sea Islands, in addition to all Chinese and other Far Eastern ports, from which points large orders are received by the company, testifying to the high qualities of its products. The founder of the industry is now Director of the great enterprise.

K. TAKEUCHI SAFE COMPANY

It would be surprising did not the Japanese business community, along with their progress in all other directions, recognise the necessity for the best class of protection against theft and fire, and to that end sup-

port such an industry as that of the K. Takeuchi Safe Company, which has earned a high reputation for its safes and strong rooms. This company is manufacturing on an extensive scale, and has been principally responsible for the entire installation of safes and similar protection in most of the large offices in Tokyo, and other important business centres. The business was founded in June, 1867, by Mr. Zenjiro Takeuchi, who was, indeed, the first maker of modern safes in Japan. With the remodelling of all Japanese ideas of business, and the reconstruction of offices, there was a steady demand for strong rooms and safes, and Mr. Takeuchi's enterprise found ready support, so much so, that the plant was several times increased, and finally, in 1911, the business was transformed into that of a joint-stock company, with a capital of Yen 300,000. Up to this stage attention had been mainly



PREMISES OF TAKEUCHI SAFE COMPANY

centred on the manufacture of safes by hand, but the company, backed up by its lengthy experience and its skilled workers, was now able to import the best machinery, and the manufacture of strong room doors and vaults was entered upon, the demand increasing by leaps and bounds. The Takeuchi model safe combines the best features of the highest class of product in England, America, and Germany. The use of machinery and the large output has enabled the Takeuchi Company to turn out much better and cheaper safes than those which are made partly by machinery and partly by manual labour. In the Orient the Takeuchi Safe is considered the ideal product. In Japan the number of customers, or applicants for safes, is counted by tens of thousands, and the company has also developed a substantial export trade with China, Siam, India, Australia, and the South Sea islands. As a matter of fact, the demand for the Takeuchi Safe always exceeds the supply. To give some idea of the support which the Takeuchi Safe Company has received from the big business enterprises of Japan, it may be stated that it has supplied 142 safes to the Bank of Japan,

37 to the head office and branches of the Yokohama Specie Bank, 59 to the Bank of Taiwan, 57 to the First Bank, 46 to the Sumitomo Bank, 46 to the Bank of Chosen, and many safes to the Industrial, Hypothec, Fifteenth, Mitsui, the Third Bank and others. In addition, the company has supplied safes to the palace of the Heir Apparent, and to Prince Takeda. To give a complete list of important customers of the company is impossible in limited space. Business people generally have expressed their approval of the Takeuchi Safe, which is regarded as the best article manufactured in Japan. The Takeuchi Safe Company undoubtedly has a bright future before it.

LEVER BROTHERS (JAPAN), LIMITED

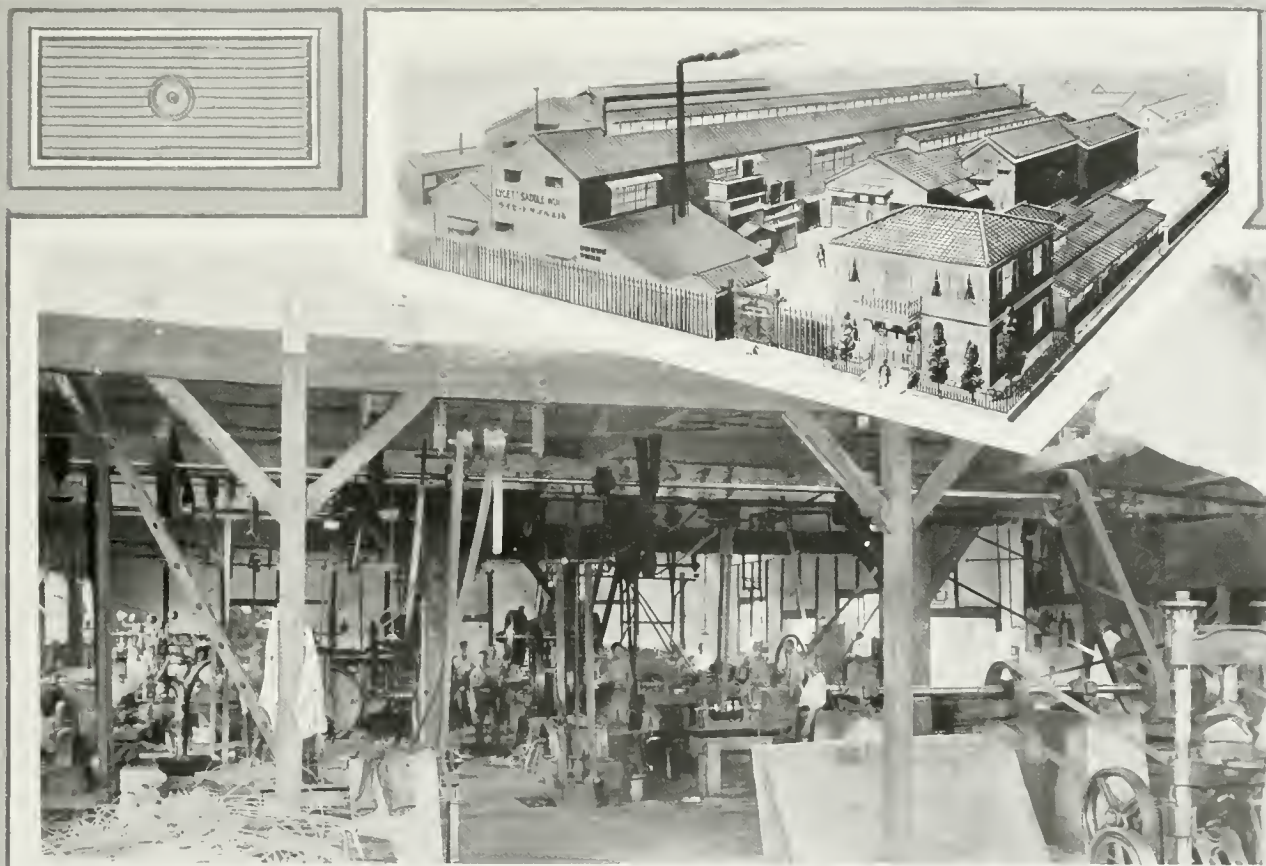
LEVER BROTHERS (Japan), Ltd., is an associated company of Lever Brothers, Limited, England, formed for the purpose of developing their trade in Japan. For many years the English house exported to Japan, but in 1911 it was decided to erect works in Japan, and land was selected at Tori-Shinden, the site of the present factory. The area of the factory site is 49,599 *tsubo*, situated near

the entrance to the Amagasaki River. The capital of the Japan company is Yen 3,000,000. There are offices in Kobé, Osaka, and Tokyo. The company manufactures soaps of all kinds, both laundry and toilet. It also operates oil mills and produces soya bean oil, and copra oil on a large scale, in addition to being the largest producer and refiner of glycerine in Japan.

At the works at Tori-Shinden, the average number of employees is over 400, and there is a large staff in connection with the office and sales department. With the exception of the directors and heads of departments, the staff is entirely Japanese.

THE LYCETT SADDLE CO.

THIS company, which is an offshoot of the Lycett Saddle and Motor Accessories Co., Ltd., of Birmingham, England, was established at Kobé, Japan, in 1912 by Mr. Edward Lycett, and in a comparatively short space of time has built up a substantial industry in the manufacture of cycle saddles. The bicycle building industry itself is a fairly large one in Japan, and that there is full scope for the operations of such a concern



LYCETT SADDLE CO.: BIRD'S-EYE VIEW OF THE WORKS AT KOBÉ—INTERIOR VIEW OF THE WORKS



TOTARO YAZAWA SHOTEN: KOBÉ PREMISES AND GODOWNS—REAR VIEW OF MR. YAZAWA'S FINE VILLA AT SHIOYA
THE HOKKAIDO BRANCH—THE PRIVATE OFFICE

as the Lycett Saddle Company is seen in the volume of that company's output, which amounts to over 70,000 cycle saddles per annum. The capital of the company is Yen 100,000. A modern factory has been established at No. 158 Wakinohame, 2 chome, Kobé, covering an area of 650 *tsubo*. The building contains a full equipment of spring-making machinery, and plant of various kinds for leather-working. The motive power is electricity. About fifty hands are employed. To carry on the work much of the raw material, mainly sheet steel and wire, is imported. The saddles are sold principally in the local market to cycle and motorcycle builders, and an export trade is also done with Australia, India, China, Java, the Straits Settlements, and

the Philippines. The business is managed by Mr. W. H. Kendrick. In Australia the Lycett Saddle Company is represented by Mr. James Thornell, G. P. O. Box 882, Sydney. The postal address of the company is P. O. Box 217, Sannomiya, Kobé, Japan.

TOTARO YAZAWA & CO.

THIS firm is well known throughout Japan and abroad for its important dealings in menthol crystals and peppermint oil, the manufacture and sale of which have been specialties of Tataro Yazawa & Co. for many years. The business was founded in 1893 by Mr. Tataro Yazawa, who is still principal of the firm, and through his efforts a large enterprise has been developed, not only in the two special lines noted above,

but in general transactions in natural products of Japan for export to foreign countries. Mr. Yazawa's trade operations represent something like a total value of Yen 2,000,000 per annum, shipments being made to Europe, the United States, China, and the South Sea islands.

The firm has its own factory, which covers an area of about 500 *tsubo*, the building being a two-story brick structure, equipped with modern plant, driven by steam. Employees number 100. There are also branches at Nokkeushi-machi, Kitami, Hokkaido, and at Nayoromachi, Teshio Province, Hokkaido. The head office and main godowns of the firm are at No. 7 Hachimandori, Itchome, Kobé. Tataro Yazawa & Co. have valuable connections in many foreign countries.



PARTS OF HIGASHI-KU AND KITA-KU (EASTERN AND NORTHERN WARDS), TAKEN FROM THE ROOF OF MITSUKOSHI, OSAKA



KOBÉ, AS SEEN IN A PANORAMA

XXXVIII. THE CITY OF KOBÉ

LOCATED on a natural harbour at the head of the beautiful Inland Sea, the site running some five miles along the sea front, and with a series of fair green hills rising behind, Kobé is superbly situated alike for residence, industry, and trade. The city slopes up along the plain between the hills and the sea, the upper portion rising sufficiently high to divide the town into what might be called the Bluff, the houses descending in a row of terraces to the Bund. Protected by the highlands on the north and open to the sea from the south, Kobé has a delightful climate, seldom suffering from extremes of heat or cold. The view from the summit of the hills behind the city is delightful, with the island of Awaji toward the Pacific, and the blue mountains of Shikoku beyond. The central line of the Imperial Government Railway passes through Kobé, connecting it with all the important cities north and south, while an electric tramway runs to Osaka. Kobé is also a convenient starting-point for Tsuruga, the port connecting

with Vladivostock and the Trans-Siberian route, only eighteen days to London. All the great steamship lines call at Kobé, with passenger service to Europe, America, South America, China, and Australia, while big British freight carriers and native coasting vessels are always to be seen in the harbour.

In early days the chief centre was Hyogo, Kobé being an insignificant hamlet in which no one took any interest until it was designated as a settlement for foreigners. And thus at the outset there were Hyogo and Kobé, just as at the northern port there were Kanagawa and Yokohama. Hyogo figures in Japanese history until lost in the ages of myth, the port having the distinction of receiving imperial personages who are said to have landed there, and even gods and goddesses. In ancient times the numerous embassies despatched from China to the Court of Japan always landed at Hyogo. In 1161 the famous Kiyomori constructed a better harbour at Hyogo, with the idea of promoting foreign commerce, and in 1180

he endeavoured to have the national capital removed to Fukuhara in the same vicinity. In 1336, when Ashikaga Takauji came to attack the imperial forces, he made Hyogo his point of strategic advantage, defeating Kusonoki Masashigé, who died on the banks of the Minatogawa. Hideyoshi made the place his chief naval port, and in modern times, when Japan was opened to foreign intercourse, Hyogo was named as one of the open ports. With the advent of foreigners, the centre of business gradually shifted toward the foreign settlement at Kobé, the site being much better adapted to trade and affording better harbour facilities than its near neighbour, and soon the development was such that the two places merged into one. At the time when the first foreigners came to Kobé it was a hamlet of a few hundred people, while Hyogo was a place of 20,000 persons as far back as 1781, but after the influx of foreigners began and population gravitated toward Kobé, the increase was so rapid that in fifty years it had grown to over 400,000. To-day it is



FROM THE HILLS ABOVE THE PORT

not less than 450,000, of whom some 3,000 are foreigners, the British numbering some 500.

The city of Kobé, like other municipalities of modern Japan, has its mayor and city council, who manage the affairs of the corporation. It is also the seat of the central government of the prefecture, and some of the more famous men of Japan have held office there, including the late Prince Ito. The annual revenue of the city is about Yen 5,000,000, and the expenditure something over Yen 4,500,000. Kobé has no foreign debt, but liabilities contracted in connection with the putting in of a modern system of waterworks amount to over Yen 22,500,000, which sum is to be paid off by 1949. The water supply is the only city undertaking, however, as electric lighting, urban tramways, and gas works are all left to private enterprise, while the reconstruction of the harbour now going on is undertaken by the State. Thus the municipality is relieved from burdens which at times seem to lie heavily on cities like Kyoto and Osaka. The water system is not adequate to the needs of the rapidly growing population and expensive extensions have been undertaken, involving an outlay of over Yen 11,000,-

000, of which some 2,500,000 has been contributed from the State treasury. Although the harbour works have been undertaken by the State the city has to contribute over Yen 3,000,000 out of a total of Yen 12,740,000. When the harbour works are completed as they soon will be, Kobé will have one of the finest harbours in the world. This undertaking has been more fully described in the article on Harbours and Shipping (Section XI). Needless to say Kobé harbour is one of the busiest in the Orient. Most of the passengers reaching Japan from the European route land at Kobé, and proceed northward by train. The total annual tonnage for Kobé is over 7,000,000, and the number of ships calling at the port about 3,000. The chief shipping companies are the Nippon Yusen Kaisha and the Osaka Shosen Kaisha, as well as the various foreign companies.

The commerce of Kobé has also witnessed marvellous development in recent years. As a great part of the enormous manufacturing output from Osaka is exported through Kobé and a considerable portion of the raw cotton imports for these manufactures comes into Japan by way of Kobé, the volume of foreign trade is increased to an extent that

is out of all proportion to Kobé's own importance as an industrial and commercial centre, though in this respect the city's significance is not small. While the largest item of export from Yokohama is silk, the exports from Kobé are of a greatly varied character. Cotton yarn is the largest and next comes copper. Other important items are rice, camphor, matting, tea, porcelain, sugar, and others numerous beyond mention. Among the more important imports are raw cotton, woollen cloths, machinery, dyes, and kerosene. The significance of Kobé as a port in foreign trade may be seen by a study of the following table, showing the progress of imports and exports in totals every five years since 1878.

| YEAR | TOTAL IMPORTS AND EXPORTS |
|------|---------------------------|
| | Yen |
| 1878 | 12,531,500 |
| 1883 | 12,961,800 |
| 1888 | 42,972,000 |
| 1893 | 62,263,000 |
| 1898 | 198,253,000 |
| 1908 | 245,052,000 |
| 1913 | 449,482,000 |
| 1917 | 466,814,000 |

Of the total of exports and imports British firms handled an increasing percentage, in spite of the agitation for direct trade. A great portion of the exports from Kobé goes to China, Hongkong, British India, France, England, and the United States.

As a manufacturing and industrial centre Kobé is also fast coming into prominence. Besides the great Mitsu Bishi and Kawasaki dockyards, employing between them more than 4,000 mechanics, there is the large cotton mill of the Kanegafuchi Company, with over 3,000 hands, one of the model factories of the Far East. In addition to these great and prosperous establishments, there are big flour mills with a capacity of 1,000 barrels and 4,000 sacks a day; and the Kobé Steel Works, engaged in engineering enterprises, as well as a sugar refinery of considerable output. The manufacture of matches has reached the height of its prosperity in Kobé, the factories employing over 5,000 hands. Of enterprises on a smaller scale space does not permit us to speak, but there are enough to show that Kobé is quite as enterprising in industry as she is in commerce and shipping.



THE BUND, KOBÉ

Educationally Kobé is well provided, having some 32 primary schools, 15 kindergartens, 5 girls' high schools, 6 commercial, and 2 middle schools. There are also some excellent mission schools, like the Kwansei

College, and the Kobé Ladies' College, under the auspices of American mission boards. There is a public library visited by some 60,000 persons annually. As to pleasure resorts and places of interest Kobé has the



SANNOMIYA STREET, KOBÉ

usual quota apportioned to the typical Japanese city. The tram lines run out to Suma, a pretty watering place on the Inland Sea. The Ikuta shrine marks the spot in Kobé where fierce battles raged long ago, while a famous monument at the Minatogawa shrine shows where the noted loyalist, Kusunoki Masashigé, fell in defence of the Imperial House. Kobé has many fine parks and public

J. L. THOMPSON & CO.

THE business conducted under the trade name of J. L. Thompson & Co. was established soon after the opening of the port of Kobé to foreigners in 1868. With the development of Kobé as a commercial centre, the firm steadily grew, and to-day, besides its retail chemists and druggist's store, has an aerated water factory, and maintains import

magazines may be obtained. The products of the firm's aerated water factory are well known throughout Japan, and are supplied to the leading clubs and hotels, as well as to the dining cars on the Imperial Japanese Government Railways, the railways of Korea, and the South Manchuria line, and the steamers of the Nippon Yusen Kaisha. In the Import Department, J. L. Thompson & Co.



J. L. THOMPSON & CO.: A CORNER IN THE WELL-STOCKED KOBÉ STORE—THE KOBÉ PREMISES

gardens, from which beautiful views may be had of the picturesque environs of the city. The summering place known as Rokkusan is only a short distance from the town up among the hills, the trip being rather stiff. The Nunobiki Waterfall at the upper end of the city shows where the city water supply comes from. Nearby is the famous bottling place, known as Hirano Water, and another called Tansan. In the Suwayama Park stands a monument in memory of the French astronomer who surveyed the transit of Venus from this site in 1874, while southward along the coast are the scenes of battles long ago between the Heiké and the Genji clans. At Maiko is an imperial villa.

and export departments. The retail department is always in charge of a fully qualified chemist, who has passed the examinations of the Pharmaceutical Society of Great Britain, and prescriptions are dispensed only by qualified men. A large and varied stock of English, American, and Continental drugs, medical preparations, perfumes, toilet articles, etc., is carried, and the attractive store at No. 3 Kaigan-dori, Ichhome, lacks nothing requisite to make it one of the very best drug stores to be found in the Orient. J. L. Thompson & Co. also sell tobacco, pipes, and all smokers' necessaries, and there is also a book and stationery department where the latest novels and English and American

handle their own imports of foreign drugs, chemicals, and medical preparations, which are supplied to Japanese hospitals and the medical profession generally. The firm is the agent for Japan for Genatosan, Ltd., the purchasers and makers of "Sanatogen," and for Messrs. Oppenheimer Son & Co., Ltd., of London, and Messrs. Comar of Paris. Japan has lately developed a flourishing industry in high-grade glassware, surgical instruments, chemicals, etc., and it is mainly these lines which J. L. Thompson & Co. handle in their Export Department. The firm exports glass bottles, chemical glassware, and glass manufactures of all descriptions, also surgical instruments, rubber goods, leather goods,



SAKAYEMACHI, KOBÉ

Japanese chemicals, and all manufactures connected with the chemist's and aerated water trades.

The Senior Partner in the firm is Mr. T. W. Franklin, who took over the business from Mr. J. L. Thompson some years ago. The Managing Partner is Mr. H. J. Griffiths, who entered the service of the firm eleven years ago, became Manager in 1912, and was admitted to partnership in 1915. J. L. Thompson & Co. employ four European and thirty-five Japanese assistants

THE CLIFFORD-WILKINSON TANSAN MINERAL WATER CO., LIMITED

"TANSAN" is a word of mystic sound, heard by travellers on their way to Japan, immediately they board the steamer that is to take them to the Land of the Chrysanthemum. The word ceases to mystify very quickly, for it is discovered to be the name of a mineral water, a popular favourite with every one who has lived in, or has visited Japan, as indeed, it is now almost as well known abroad. Tansan is served on all vessels that call at Japan, and throughout the Orient it is universally accepted as the mineral water for all mixed drinks, just as in other parts of the world one calls for Apollinaris, Perrier, or similar waters. Though there are many waters sold as Tansan, there is only one genuine, and that is the product of the spring at Takaradzuka, near Kobé, owned by the Clifford-Wilkinson Tansan Mineral Water Co., Ltd. The story of the discovery of this spring by Mr Clifford-Wilkinson, an Englishman, has been quaintly told by the "Japan Aerated Water Trade Review," which relates

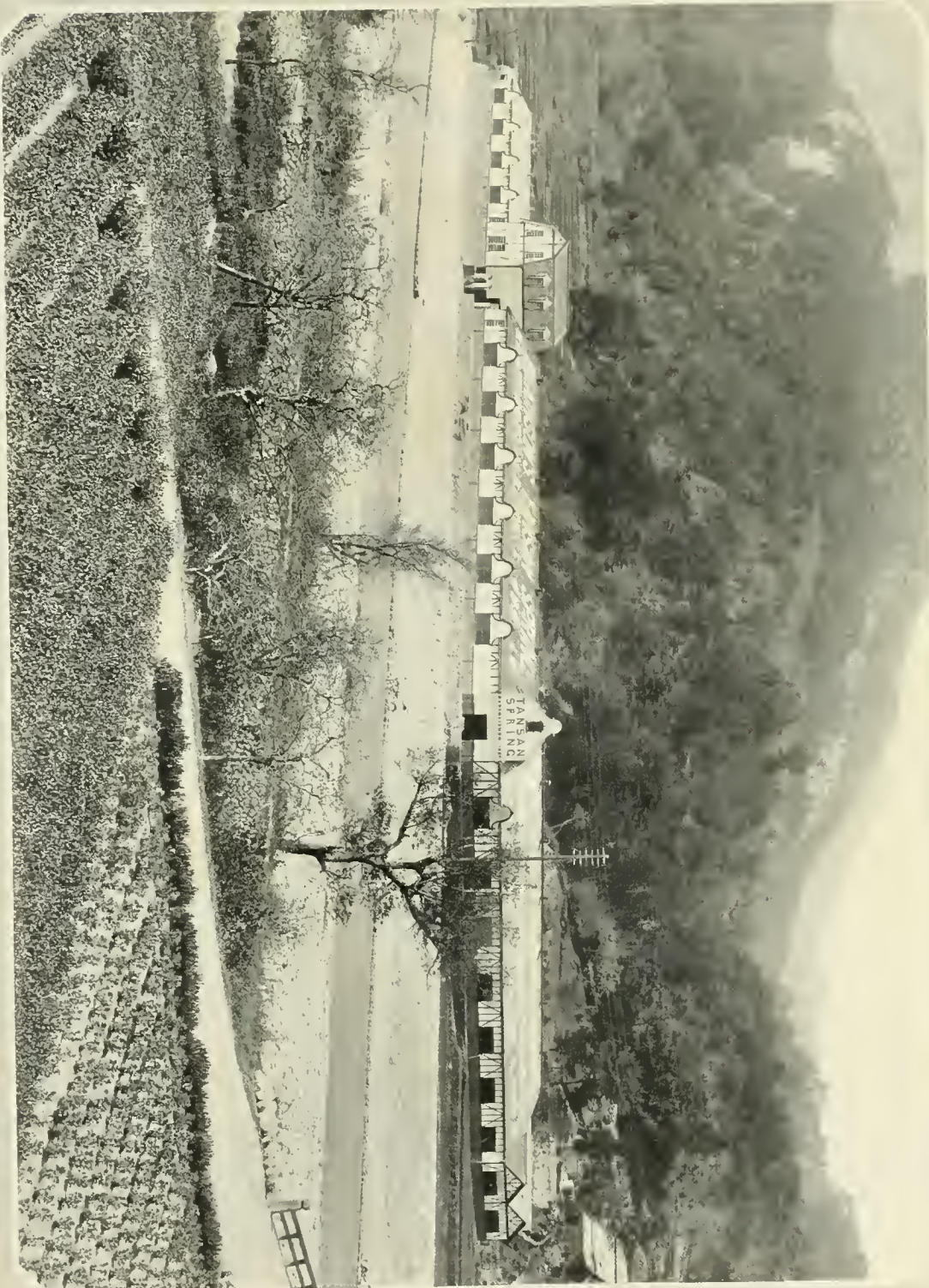
that Mr. Wilkinson was accustomed to go hunting in the green wooded mountains, "and to bathe in the bright and mild sun-light, and to breathe his chestful, the pure and sweet air." The historian of the paper referred to goes on to say that one day, when out hunting, Mr. Wilkinson felt a terrible thirst. So he asked his follower to take out the whiskey bottle, but the native follower, not only could not produce a drop from the bottle, but was also speechless from drunkenness. Then Mr. Wilkinson had to quench his thirst from a nearby spring which gushed out

of a fissure of rocks. He was fairly surprised with its deliciousness and cried unconsciously, "Oh, this is the very Nature's own beverage, pure, fresh, and sparkling, gushing out of the depths of volcanic rock in the characteristic strata of the Land of the Rising Sun." No doubt this is poetic imagination, but it is quite true that Mr. Wilkinson was deeply impressed with the excellence of the mineral spring water, and his discovery became the origin of an enterprise which, to-day, is of immense proportions, and of first rate importance in the industries of Japan.

There was no question of the purity of the supply, the Tansan spring issuing from the mountainside at a source that could not be contaminated, and the water filtering through many strata of volcanic rock from which it derives its mineral properties. By analysis it was learned that the water was exceptionally rich in all the mineral ingredients that constitute a natural spa water of medicinal value. The actual mineral properties of Tansan, disclosed by careful analyses conducted in London, revealed the following: Chloride of sodium, 14.26; chloride of potassium, 14.93; sulphate of calcium, 0.95; carbonate of calcium, 5.92; carbonate of magnesium, 0.64; iron carbonate, 0.21; and silica, 2.86. Later on it was discovered by Professor Kenzo Hattori, of the Medical Department of the Tokyo Imperial University, that Tansan was also exceptionally rich in radium. Professor Hattori confirmed the opinion, long held by others, that the peculiar properties of Tansan must be attributed to radio-activity, and he demonstrated that the water gave a radium emanation of 31 *mache* per litre at 17



A STREET SCENE, KOBÉ



THE EXTENSIVE BOTTLING WORKS OF THE CLIFFORD-WILKINSON TANSAN MINERAL WATER CO., LTD.



KIYOMACHI, OR FOREIGN BUSINESS SECTION

centigrade. No other water of this class has been found to give a greater emanation than 17 *maché*.

Long before these scientific evidences of the high value of Tansan mineral water were made known, the product of the spring discovered by Mr. Wilkinson had been bottled and sold

throughout Japan, the public readily accepting the water as one of the most palatable and refreshing ever placed on the market. Mr. Wilkinson put the bottling and sale of the water on a commercial basis by forming a company, many years ago, and since that time Tansan has been sold in enormous

quantities, not only in Japan, but throughout the world. The spring yields about 40,000,000 pints per annum, and the present output of the bottling works is approximately 30,000 pint bottles daily. The bottling works, close to the spring, cover about 4 acres, and a large number of persons are employed in handling the output and despatching it to the warehouses of the company. On many occasions parties of medical men and scientists have visited the works, and Mr. Wilkinson has received many tributes at their hands to the care and attention which his company devotes to the handling and bottling of the water in order to ensure that the public shall receive a wholesome and pure mineral water. It is interesting to note, also, that the value of Tansan has been appreciated to such a high degree by the medical fraternity of the United States, that in the last few years a memorial, signed by over 200 physicians and surgeons, was presented to the Sixty-first Congress, asking that the import duty on Tansan should be removed, owing to its exceptional purity and its real value in medical therapeutics.

Tansan is being sold in all parts of the world through a large number of the best merchant houses, selected as agents of the Clifford-Wilkinson Tansan Mineral Water Co., Ltd. The head office of the company is at Kobé, Japan.





SUWAYAMA PARK, KOBÉ

XXXIX. IMPORTS AND EXPORTS

(KOBÉ AND OSAKA SECTION*)

KOBÉ BUSINESS FIRMS

SUZUKI & CO.

THERE are certain great mercantile houses in Japan which are organised on the lines of the most prominent European or American trading companies, being divided into a number of departments, covering a vast variety of interests, and having branches scattered throughout the world. These Japanese houses have done more than any other agency not only to develop the foreign trade of the Empire, but to promote and foster great domestic industries, by utilising their influence, and frequently their capital, to develop natural resources and find outlets for the products. Such a house is that of Messrs. Suzuki & Co., of Kobé. To give in detail the activities of this firm is hardly possible within limited scope, but it is sufficient to say that it is associated in a score of different ways with the commerce and industrial interests of Japan. Messrs. Suzuki & Co. are general merchants, importers and exporters, manufacturers, ship owners' agents, brokers, financiers, etc. They have offices in New York and London, as well as in many other centres of commercial importance in different parts of the world, and there is hardly any department of

Japan's commerce which they do not include in their widely diversified and skilfully developed business.

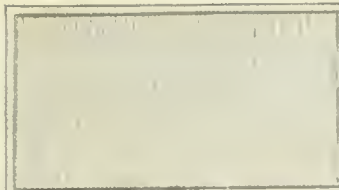
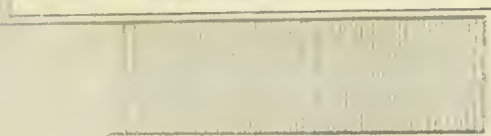
The firm was established in 1887. Among their imports are sugar, rice, wheat, flour, cotton, wool, nitrate of soda, fertilizers, iron, steel, shipbuilding and railway materials, machinery, metals, ores, timbers, chemicals, etc. The main lines of export are sugar, brown and polished rice, beans, peas and other agricultural products, potato starch, vegetable wax, isinglass, rape oil, peanut oil, copper, antimony, spelter, sulphur, superphosphate, cement, coal, salt, timber, and other Japanese produce, and manufactures turned out in their own factories or by subsidiary companies. The internal organisation of Messrs. Suzuki & Co. consists of many different departments, each concentrating on a special branch of trade and commerce, or industrial activity. For instance, the Industrial Department deals with the firm's interests in camphor and menthol refineries, fish and vegetable oil, and chemical works, rice mills, an alcohol distillery, and coal mines. The Shipping Department alone is a most important and active branch. It embraces the direction of such concerns as the Teikoku Steamship Company, Ltd., which now has under construction nineteen vessels of from 5,000 to 11,000 tons dead-

weight capacity, besides the Toba Shipbuilding Co., Ltd., and the Harima Dockyard Company, Ltd., for both of which Messrs. Suzuki & Co. are the Managing Agents. Perhaps if there is set out the list of concerns for which Messrs. Suzuki & Co. stand largely responsible, either as Managing Agents or as the Selling Agents, or in other capacities, some idea will be gained of the enormous influence which the firm wields in the realm of Japan's commerce and industry. Apart from the shipping interests mentioned above, Messrs. Suzuki & Co. are Managing Agents for the following: Kobé Steel Works, Ltd., which manufactures steel castings and forgings to Admiralty and Lloyd's requirements, rolling mills, plates, angles, bars, twist drills, machine tools, steam engines, pumps and other machine plants; the South Manchuria Produce Company, Ltd., largest and most up-to-date bean oil mills; the Nippon Metals Company, Ltd., which produces zinc, electrolytic copper, antimony, etc.; the Teikoku Brewery Co., Ltd.; the Dairi Flour Mills Co., Ltd.; Sapporo Flour Mills Co., Ltd.; Wood Distilling Co., Ltd.; Giran Colonization Co., Ltd.; Nippon Alcohol Distilling Co., Ltd.; Formosa Salt Co., Ltd.; Sanyo Iron Works, Osaka; Taisho Life Insurance Co., Ltd.; Toyo Marine Insurance Co., Ltd.; Toyo Match

*See Page 203.



THE KOBÉ OFFICES OF SUZUKI & COMPANY



JARDINE, MATHESON & CO., LTD.: A CORNER OF THE KOBÉ OFFICE—THE OFFICES AND GODOWNS AT KOBÉ —
A SCENE IN THE STRAWBRAID GODOWN

Company, Ltd.; Nippon Celluloid and Artificial Silk Company; Azuma Industrial Co., Ltd., and the Saga Cotton Spinning Company, Ltd. What such a formidable list of enterprises means is perhaps best understood by those who know Japan well, and realise what a vast industrial field is covered by Messrs. Suzuki & Co. Furthermore, they are the agents for the Arisan Government Wood Mills, of Formosa, producing the famous "Hinoki" and other Formosan timbers; the Shantung Government Mining Bureau, Tsingtau, which produces anthracite coal; the Dai-Nippon Sugar Manufacturing Co., Ltd., Japan and Formosa; the Toyo Sugar Manufacturing Co., Ltd., and the Ensuiko Sugar Company, Ltd.

Messrs. Suzuki & Company's business has naturally developed to a remarkable degree during the war, seeing that they are in a position, scarcely equalled by any one else, to handle and ship any quantities of much needed products, natural and manufactured, that are called for by foreign countries. The premises of the firm cover a large area at Kobé, but the expansion of the business has necessitated the construction of new offices and warehouses. The site for these has been secured in the foreign concession at Kobé, and a magnificent building of huge proportions is now being erected. The London office of Messrs. Suzuki & Co. is at 29 Mincing Lane, and the New York office is at 220 Broadway. Other branches are at Seattle, Petrograd, Vladivostock, Singapore, Calcutta, Bombay, Hanoi, Hongkong, Shanghai, Tsingtau, Hankow, Dairen, Keijo and Fusan (Korea), Taipeh, Tainan, and Takao (Formosa), Tokyo, Osaka, Nagoya, Yokohama, Dairi, Moji, Shimonoseki, Otaru, Hakodate, Sapporo, and Asahigawa. The Senior Partner of the firm is Madame Yone Suzuki and it is a tribute to the magnificent work she has done in the development of Japan's foreign trade that she was recently decorated by the Emperor with the Green Ribbon. The Co-Partners of this great business are Messrs. F. Yanajida and N. Kaneko. The Managers are Messrs. B. Nishikawa and S. Mori (See index for other pages.)

JARDINE, MATHESON & CO., LIMITED

THIS famous old merchant house has been represented at Kobé since 1876, when a branch was established there to handle the ordinary shipping and agency business of the firm, and to deal in those special lines for which Kobé is the natural trading centre. Messrs. Jardine, Matheson & Co., Ltd., own an excellent business site at No. 83 Kyo-machi, Kobé. The premises comprise a handsome two-story office building in which



KOBÉ OFFICES OWNED BY W. M. STRACHAN & CO., LTD.

there are fifteen commodious rooms, and behind the office building are a four-story godown and two two-story godowns, covering a total area of 600 *tsubo*.

The company carries on the representation at Kobé of a large number of shipping companies, insurance concerns, and Far Eastern banks, and generally operates as an import and export merchant. Among the shipping companies for which Messrs. Jardine, Matheson & Co., Ltd., are the agents at Kobé are the Indo-China, the Glen and the Waterhouse Steamship Lines. Insurance agencies comprise those for the Hongkong Fire Insurance Co., Ltd., the Canton Insurance Co., Ltd., the Royal Insurance Co., Ltd. Special lines of trade comprise straw and hemp braids, hats, etc., these goods being handled in special departments. The company exports to all parts of the world. Mr. C. Chicken is the Manager of the Kobé branch. The staff consists of seven Europeans and there are about forty Japanese employees. (See index.)

W. M. STRACHAN & CO., LIMITED

In dealing with the foreign business houses of Kobé mention must be made of the activities in this important commercial centre of Japan of the branch of Messrs. W. M. Strachan & Co., Ltd. The history and development of the company is fully given in the Yokohama section of this work, and reference is there made to the Kobé branch, which was established in 1884. A large volume of the export trade of this house is handled from Kobé, which is the natural base for the assembly and despatch of many natural and manufactured products which

come from such places as Kyoto, Nagoya, and contiguous industrial districts. Kobé is also the principal port, especially in view of the proximity of such a great manufacturing city as Osaka, for the import of raw materials of different kinds intended for some of the foremost Japanese textile and manufacturing concerns. W. M. Strachan & Co., Ltd., therefore handle at the Kobé branch such exports as buttons, brushes, straw braid, hemp tagal, hats, mattings, etc., and import cotton, wool, metals, leather, machinery, essential oils, and products of foreign countries.

The office of the company is at No. 1 Kaigan-dori, Kobé, where an extensive business site is occupied. On the compound there are four godowns, of which three are two-story modern buildings, accommodating a large and valuable stock, or serving for purposes of inspection, packing, and so on. At Kobé an extensive insurance business is also transacted, Strachan & Co., Ltd., being agents for the following fire insurance companies: Northern Assurance Co., Ltd., Queen Insurance Co., Ltd., Phoenix Assurance Co., Ltd., Guardian Assurance Co., Ltd., and London and Lancashire Insurance Co., Ltd. Marine insurance agencies held by the company are: London and Provincial Marine and General Insurance Co., Ltd., Phoenix Marine Assurance Co., Ltd., Sea Insurance Co., Ltd., Federal Insurance Co., Ltd., and the Royal Exchange Assurance Corporation.

The Manager of the branch is Mr. E. B. S. Edwards, and the heads of the various departments are: Mr. R. F. Stephen, Acting Manager Imports Department; Mr. W. G.



DODWELL & CO., LTD.: THE KOBÉ OFFICES AND TWO SCENES IN THE STRAWBRAID GODOWN

Fox, Manager Exports Department; Mr. W. White, Imports Department, and Mr. J. Y. Miller, Insurance Department. Apart from the European staff which numbers seven, there are four Chinese and twenty-seven Japanese clerks and assistants. (See also page 242.)

DODWELL & CO., LIMITED

THE origin and history of the extensive business now conducted throughout the Orient by Messrs. Dodwell & Co., Ltd., whose headquarters are at St. Mary Axe, London, is given in full in the Yokohama section of this work. It is sufficient to say, by way of introduction to the operations conducted through the Kobé branch of the company, that the business had its genesis in the early days of the China trade when it was under the control of Messrs. Adamson, Bell & Co. That firm went out of business in 1891, and its interests were taken over by Messrs. Dodwell, Carlill & Co., the partnership interests of those gentlemen being merged in a limited liability company in 1899. Trade with Japan was started under

the old concern in 1877, when the Yokohama branch was opened.

The Kobé branch of Messrs. Dodwell & Co., Ltd., transacts a large volume of business as shippers, charterers, fire and marine insurance brokers, and as coal contractors, apart from an extensive import and export trade. The company has the representation of a number of well known manufacturers in Great Britain and the United States, as well as the agency for several shipping companies and insurance organisations. Two of the best known commercial lines are the sole agencies for the Underwood Typewriter and the Overland Motor Car. Imports and exports comprise generally those lines which are best handled at Kobé. Principal among the imports are piece goods, metals, machinery, shells, Underwood typewriters, anti-fouling paints, cutch, resin, paints, varnishes and oils, chemicals, leather, motor cars, as well as a wide range of other general merchandise. Exports comprise coals, strawbraid, underwear, towels, produce, fertilizers, tea and rubber chests, oils, matches, flour, chemicals, gunny tares and bagging, bottles and general glassware, straw envelopes, rugs,

electric fittings, bronze powder, earthenware, and Japanese manufactured articles and merchandise of all descriptions.

Messrs. Dodwell & Co., Ltd., trade with practically all parts of the world. They have their own offices at London, New York, San Francisco, Seattle, Tacoma, Victoria, Vancouver, Hongkong, Canton, Shanghai, Hankow, and Foochow. The capital of the company is £200,000, and the directorate comprises: Messrs. George B. Dodwell, A. J. H. Carlill, Fred Dodwell, Stanley Dodwell, Alec Stewart, George J. Melhuish, T. M. Dermer, F. D'Iffanger, and H. A. J. Macray. Mr. J. P. Warren is the Manager of the Kobé branch, which is located at No. 82 Kyo-machi. (See also page 243.)

FINDLAY, RICHARDSON & CO., LIMITED

THE commercial interests of Great Britain have been well served in the Far East by a number of substantial old mercantile houses, whose records from the pioneering days onward make interesting reading, and whose steady growth and high reputation have done more than anything else to impress on



FINDLAY, RICHARDSON & CO., LTD. (ABOVE) THE EXPORT DEPOT — (LEFT) THE MAIN GODOWN — THE KOBÉ GODOWNS AND OFFICES



REPRESENTATIVE BRITISH RESIDENTS OF KOBÉ

(Upper Row, Left to Right) C. CHICKEN, Kobé Agent for Jardine, Matheson & Co., Ltd. — J. McARTHUR, Acting Agent at Kobé for the Hongkong & Shanghai Banking Corporation. (Middle Row) J. B. SUTTON, Trade Commissioner of New South Wales, in the Far East — RALPH G. E. FORSTER, ESQ., British Consul-General at Kobé — JAMES MARSHALL, Resident Partner for Japan, Findlay, Richardson & Co., Ltd. (Lower Row) E. B. S. EDWARDS, Manager of Kobé Branch, W. M. Strachan & Co., Ltd. — The Late E. H. HUNTER, Founder of the Osaka Iron Works and of E. H. Hunter & Co. — ALF. WOOLLEY, Chief Agent for Japan of the Peninsular & Oriental Steam Navigation Co.

those with whom they have so long been in trade relationship, what the dignity and prestige of British commerce really means. Such a house is that of Messrs. Findlay, Richardson & Co., Ltd., which has passed its jubilee as a trading concern in Japan. This old business was originally established in Glasgow, where the head office still is, but the name has been so long associated with the trade of the Far East that with all justification it is regarded almost entirely as a product of the adventurous and enterprising spirit of the early days, when the foundations of so many houses in which the British trading communities rightly take pride, were well and truly laid. But Yokohama was not the place of origin of Messrs. Findlay, Richardson's Oriental business. The first connection with the Far East took

place in the Philippines, over eighty years ago, when the firm opened a branch at Manila under the trade name of Findlay, Richardson & Co., as distinguished from Richardson, Findlay & Co., which was the style in Glasgow up to 1909. In those days the firm was engaged principally in the import of Manchester cottons, and in the export of hemp, sugar, indigo, coffee, cigars, etc., to the United Kingdom and the United States.

In 1866 the firm turned its attention to Japan, then in the first stages of the development of its foreign trade, so that Messrs. Findlay, Richardson & Co. may well be regarded as pioneers in this field. They opened a branch at No. 7 Bund, Yokohama, and a few years later acquired the premises which they now occupy at No. 6, where the

offices and extensive godowns are situated. The gentlemen connected with the opening in Japan were Messrs. R. V. Graham, Robert Johnstone, and C. G. Buchanan-Dunlop, whose names are still well remembered by the older trading community. In the early days of the Yokohama branch the principal import trade was in Manchester yarns and cotton textiles, and later on it was interested in the export of raw silk to the London and Lyons markets, and in the shipment of tea to the United States. The business in tea was, however, taken over in 1883 by two of the firm's assistants, Messrs. Bernard and Wood, and later on the export of silk was gradually discontinued, leaving the old firm almost entirely an importing house. Its transactions were of an extensive nature among the private traders, and in more

recent years it has enjoyed a fair share of Government business. The main lines of import were Manchester and Bradford textiles, and Messrs. Findlay, Richardson & Co.'s old established "chops" of these goods are still to be seen in the domestic markets. It is an interesting fact, also, that some of the firm's standard qualities have been adopted as models for the Japanese manufacturers to copy, which, although in a sense a compliment, is not altogether a welcome one, meaning as it does a gradually decreasing demand for the imported genuine goods. Throughout this long period the firm never deviated from the old conservative ideas of commercial integrity. The business was extended steadily, and a reputation won and maintained. In many lines, which have since entirely disappeared owing to Japan's rapid economic and industrial development, Messrs. Findlay, Richardson & Co. were the pioneers and the largest importers.

In 1909 the firm was transformed into a private limited liability company with a capital of £150,000. It was then arranged that the company should trade as Findlay, Richardson & Co., Ltd., at its head office, No. 34 West George Street, Glasgow, and at its branches at Manila and Iloilo, in the

Philippines, and at Yokohama and Kobé. The branch at Kobé had been opened in 1889. A branch was also opened at Hankow, China, in 1914. Up to a few years ago Messrs. Findlay, Richardson & Co., Ltd., devoted themselves to the import side of business in Japan, apart from insurance agency, but following the trend of the times, which has been to lessen imports, the company opened an export department, and this branch of the business, under special attention, has been developed in a highly satisfactory manner. The principal lines of export are: Habutai, crepe de Chine, silk shirtings, and every class of silk and cotton piece goods; made-up articles of apparel, consisting of silk, cotton, and wool; muslin de laine and Japanese flannel; hats, caps, and hosiery; boots, shoes, slippers, and laces; shell, bone, and press buttons; parasols, umbrellas, and fittings thereof; leather *attaché* cases, suit cases, bags, etc.; Akebi baskets, matting, screens, Thermos flasks, fountain pens, pencils, antimony, enamel and lacquer ware; manufactures of brass, bronze, and copper, including gas and electrical fittings of every description; gas radiators and mantles, safes, cash boxes, surgical and dental instruments, lead and tin foil; chem-

icals and chemical apparatus; peppermint oil and menthol crystals; hemp and cotton canvas and twines; hemp and wire ropes; tea chests, momi chests, 3-ply boards; writing, news, and printing paper and strawboards; hemp braid, glass, china, porcelain and cloisonné-ware; cement, tiles, bricks, and fire clay, and all classes of Japanese products and manufactures. The principal countries of export are the United Kingdom, Australia, India, Burmah, China, the Philippines, New Zealand, and the United States.

Messrs. Findlay, Richardson & Co., Ltd., are agents for the North British and Mercantile Insurance Company, and are settling agents for the Standard, Union Marine, Atlantic Mutual, and other marine insurance companies. The present head of the company is Mr. R. E. Findlay. Other Directors are Mr. James Marshall, who is the registered representative of the company, residing at Kobé, and Mr. W. G. Crum. Mr. Norman A. Black, one of the Directors, was killed in France during the war. At Yokohama, Mr. A. H. Cole Watson is the representative of the company, having joined the business in 1884 shortly after his arrival in Yokohama.



PREMISES OF THE INTERNATIONAL TRADING CORPORATION, LIMITED, AT KOBÉ



ENTERPRISING BUSINESS MEN OF KOBÉ AND OSAKA

(Upper Row, Left to Right) Mr. M. NARUSE, Sole Partner, Seiko Shokai—Mr. T. OWI, Proprietor, Owi & Co., Kobé. (Middle Row) Mr. CHOJIRO ITO, Ex-Member House of Peers, Proprietor, Ito & Co., Kobé—Mr. S. TAMURA, President of Kobé Chamber of Commerce—Mr. K. IWAI, President, Iwai & Co., Ltd. (Lower Row) Mr. M. HIRA, Manager, Owi & Co.—Mr. MOTORA MAKINO, President, Shogyo Kos Hinsho (Mercantile Agency)—Mr. K. HASHIMOTO, Manager, Nanyoseni Kogyo Kabushiki Kaisha

THE INTERNATIONAL TRADING CORPORATION, LIMITED

THE foreign trade of Japan has grown to such enormous proportions in the last few years as to require the formation of many new organisations to handle it, and it is interesting to note that some of these concerns, such as the International Trading Corporation, Ltd., are strongly capitalised, in order that the foreign markets may be properly developed along the lines that have proved so successful. This particular corporation came into existence on July 1, 1917, establishing its head office at Osaka, and at once opening branches in such important centres of foreign trade as Kobé, Yokohama, and Tokyo, while at the same time forming extensive connections abroad.

The International Trading Corporation, Ltd., conducts a general import and export business. Specialties among its imports

are such lines as chemicals and drugs, dyes and colours, lumber, machinery and tools, motor cars, metals and metal goods of all descriptions, nitrate of soda and other fertilizers, paper mill supplies, paper and pulp, wool, cotton, and linen goods, etc. The principal exports are braids, brushes, buttons, cement, chemicals and drugs, copper, cotton goods, curios, drawn thread work, glassware, hats, lumber, matches, metal manufactures of various kinds, paper, general produce, raw silk, silk piece goods, rice, sulphur, superphosphate, tinned goods, and so on.

The capital of the company is Yen 2,000,000. Mr. Matazo Kita is the President, Mr. Kintaro Sugiyama, Managing Director, and the other principal officers are Messrs. D. H. Blake, Atsushi Yamada (Directors), and Saburo Nango and Gisaku Takigawa (Auditors). Mr. Jisaburo Nishimura is the General Manager. Inquiries addressed to

the head office of the International Trading Corporation, Ltd., at No. 2 Nichome, Dojima Hamadori, Kita-ku, Osaka, or to the branches at No. 122 Mayemachi-dori, Kobé, and No. 225 Yamashitacho, Yokohama, will receive immediate attention.

AMERICAN TRADING COMPANY

FOREMOST among the large foreign mercantile houses in Japan is the American Trading Company, which has been established a good many years, and transacts a large volume of business as general merchants, engineers, steamship and insurance agents, etc. The head office for Japan is at No. 99 Kita-machi, Kobé, and branches are located at Yokohama and Tokyo, with warehouses at Ono. The President of the company is Mr. James R. Morse, and the Vice-President and General Manager for China, Japan, and the Philippines is Mr. D. H. Blake. As is



J. WITKOWSKI & CO., LTD.: (UPPER) THE INSPECTION AND PACKING OF STRAWBRAID — (LEFT TO RIGHT) THE BUTTON DEPARTMENT — A VIEW OF THE STRAWBRAID GODOWN

well known, the American Trading Company is a world-wide concern, having its head office at New York, and branches in London, San Francisco, Tacoma, Sydney, Buenos Aires, Rio de Janeiro, Martinique, Havana, Shanghai, Manila, and Port Elizabeth. Among the agencies held by the company for Japan are the following: Brunner Mond & Company (Crescent Brand Chemicals); Scott & Browne, Ltd. (Scott's Emulsion); George H. Morrill Co (Inks); A. B. Fleming & Co., Ltd. (Inks); C. B. Cottrell & Sons Co. (Printing Presses); Elliot & Co., Ltd. (Printing Presses); National Cash Register Co., Dayton, Ohio; Remington Typewriter Co.; Toledo Computing Scale Co.; John Deere Plow Co.; Allis-Chalmers Co. (Electrical Power, Hydraulic, Flour Mill, Saw Mill, Mining Machinery, etc.); Alsop Process Co. (Electric Breeching Equipment); Brown Portable Elevator Co. (Portable Elevators); Erie City Iron Works (Steam Engines and Boilers); Herbert Morris, Ltd. (Pulley Blocks, Cranes, etc.); Ingersoll Rand Co. (Compressors, Rock Drills, Pneumatic Tools); Link Belt Co.

(Conveying Machinery, etc.); McCronway & Torley Co. (Janney Automatic Car Couplings, etc.); Otis Elevator Co. (Freight and Passenger Elevators); T. L. Smith Co. (Concrete Mixers); Trussed Concrete Steel Co. (Kahn System of Reinforced Concrete); United Shoe Machine Co. (Shoe-making Machinery); United Cigarette Machine Co. (Cigarette-making Machinery); Henry R. Worthington (Pumps, Condensers, etc.); York Manufacturing Co. (Refrigerating and Ice Plants); J. & C. Wilson Manufacturing Co. (Steel Doors and Shutters); South British Insurance Co., Ltd., Liverpool and London and Globe Insurance Co., Ltd. Shipping Agencies: American and Oriental Line; Caldwell & Co., New York.

J. WITKOWSKI & CO., LIMITED

MESSRS. J. WITKOWSKI & CO., LTD., of Kobé, Yokohama, Nagoya, and New York have the representation for Japan of many of the most famous manufacturing concerns whose products are still imported to Japan in very large quantities, despite the great strides that the Japanese have undoubtedly

made of late years in their own productive industries. While it is the experience of most of the old foreign importing houses that imports to Japan have been displaced by the locally manufactured goods, this is not the case with the lines handled by Witkowski & Co., Ltd. They are still doing a very large import business, their principal agencies being the following: Borden's Condensed Milk Sales Co., Inc., of New York; California Packing Association, San Francisco; Schwob Freres & Co., Chaux de Fonds, Switzerland (watch manufacturers); A. & F. Pears, Ltd., London; John Gosnell & Co., Ltd., London; the Crown Perfumery Co., London; Chas. Southwell & Co., London; J. S. Fry & Sons, Ltd., Bristol; Maconochie Bros., Ltd., London; and G. Preller & Co., Bordeaux. The products of these companies of world-wide repute are distributed all over Japan by Witkowski & Co., Ltd., through their distributing agencies.

As exporters this company occupies just as prominent a position. From their Kobé branch they ship matting, matches, china-



THEATRE STREET, KOBÉ
 RAKUTENCHI AND ASHIBE CLUB, IN THE CINEMA THEATRE DISTRICT, OSAKA

ware, glassware, brushes, curios, fancy goods, toys, cotton towels, socks and underwear, buttons, hemp, chip and straw braids, straw and Panama hats, and general merchandise and sundries. The main lines handled from Yokohama are silks, drawn-thread work, curios, toys, fancy goods, general produce, etc. Extensive offices and godowns are maintained at Kobé, Yokohama, and Nagoya, which are the chief centres of the export trade. The Managing Director of the company is Mr. Henri Blum, and the other Directors are Messrs. L. Meyer and L. Lazarus. (See also page 253.)

BIRCH, KIRBY & CO., LIMITED

THE Japan branch of Messrs. Birch, Kirby & Co., Ltd., the well known British merchant house, was established at Kobé in 1899, and has since been developed to large proportions, the company not only dealing in their specialties of machinery and hardware generally, but also operating in most of the lines that comprise the import and export trade of Japan. Principal among

the imports, which mainly come from the United Kingdom and America, are machinery, mill accessories, navigational instruments, ships' fittings, and all descriptions of metals and metal manufactures, scientific instruments, steam and hydraulic packings, paints, oils, and varnishes, wire ropes and miscellaneous goods. Exports comprise a large variety of Japanese manufactures in hardware, such as machine tools, electrical supplies, produce, mill supplies, metal and metal manufactures, chemicals, acids, planters' supplies, glassware, porcelain, paper, brushware, engineers' supplies, packings, oils and manufactured goods in general. Messrs. Birch, Kirby & Co., Ltd., export to the United Kingdom, the United States, Russia, India, Java, Siam, China, the Philippines, the Federated Malay Settlements, and Australia.

The company's office and warehouses in Japan are located at No. 31 Akashi-machi, Kobé. Mr. S. F. Gillum is the Manager. Messrs. Birch, Kirby & Co., Ltd., have their head office in London under the manage-

ment of Messrs. John Birch & Co., Ltd., No. 2 London Wall Buildings, London E. C. The Directorate of the company comprises Mr. Montagu Sharpe, Chairman; Mr. John Stuart Horner, Managing Director; Mr. Maures Horner, Director, and Mr. Arthur Hoare, London Manager.

STRONG & CO.

THIS British firm was established in London in 1866, and opened business in Japan in 1878, the length of its experience in Eastern markets, and the extent of its operations, making it one of the oldest and best known foreign firms in Japan and adjacent countries. Mr. Edwin Strong of London is the Managing Director. Messrs. Strong & Co. do a general export business, shipping to all markets of the world, but particularly to England and America. They do not handle imports.

The main office is at No. 96 Higashi-machi, Kobé, where the firm has a large, well built brick building. The site is an excellent one, facing the public recreation gardens in front,



THE PICTURESQUE KOBÉ OFFICES OF BIRCH, KIRBY & CO., LTD.



STRONG & COMPANY: SCENE IN A COTTON WASTE GODOWN — A MATTING INSPECTION GODOWN — THE BUTTON DEPARTMENT —
THE STRAWBRAID AND PANAMA HAT DEPARTMENT

and with spacious private gardens to the side. It extends from Higashi-machi to Yedo-machi, with a frontage of 85 feet and a depth of 170 feet. The offices face Higashi-machi, and this portion of the building is two-storied with a floor space of 7,200 square feet. The building is in a typical Japanese setting, but once inside the front door the visitor enters an atmosphere that is Occidental in every way, the rattle of typewriters, the bustling of employees, and the general air of activity giving every evidence of work at high pressure. And such is the case, for the firm transacts a very large volume of business, and the modern business problems of the Orient are met with the same organisation, application, and general methods that obtain in London or New York. The foreign staff includes ten Europeans and Americans, supervising the native personnel of nearly a hundred employees.

From the back of the offices to Yedo-machi is the main warehouse, which is of three stories, with a floor area of 17,000 square feet. There is also a glass-roofed inspection compound of 15,000 square feet, where goods are readily laid out and effectively inspected in any weather. At Ono, three minutes' rikisha ride from the Foreign Settlement, there is another spacious office and twelve godowns, where Strong & Co. handle their more bulky merchandise. The floor space available here is nearly 50,000 square feet.

A glance at the illustrations will show the Button Department of the firm. In this line Strong & Co. are pioneers; originally it was their main line of business, but with the development of Japanese industries generally the firm took up other departments of trade. Nevertheless, they are still specialists in the button export business, and have this article under their control from the time the shells leave the islands of the South Pacific, until the buttons are in the hands of their consignees in London, New York, and elsewhere.

The Fine Arts and Curio Department of Strong & Co. has the reputation of having handled some of the greatest art treasures that have left Japan, and so rich and varied is the stock that the packing section of this department looks more like an art exhibition than an ordinary commercial warehouse.

The firm are large shippers of hat plaits of all kinds, including straw braid, chip braid, and hemp braid. Their Panama Hat Department is the subject of one of the interesting illustrations, and the casual observer is induced to wonder whether there are heads enough in the Occident for all the hats shown in the course of inspection and packing.

These hats come to Japan from parts as remote as Formosa and the Loochoo Islands, and as an instance of the detail work required in the carrying on of this trade, it may be mentioned that before being graded and packed each separate hat passes through the hands of a series of inspectors, who determine its quality, dimensions, shape, etc. This careful handling calls for the large inspecting staff shown in the illustration.

Cotton waste is another article in which Strong & Co. were pioneers. With the growth of the spinning industry, which has converted Osaka into a second Manchester, and Kobé into another Liverpool, this line has expanded considerably. It takes seven spacious godowns to accommodate the army of women who pick and sort the waste received by Strong & Co. from the mills. The hydraulic press employed for baling the waste is the most powerful of its kind in Kobé. At present this department is working night and day, "doing its bit" in feeding the munition works of the Allies with the basic ingredient of explosives.

In matting and floor coverings generally, Strong & Co. claim to rank first, and they may be justly proud of their splendid plant for handling this article. The inspection room, nearly 300 feet long and 20 feet wide, is roofed with glass and curtained like an artist's studio. Thousands of tons of floor coverings go through this plant in the course of a year. This department also handles grass rugs, which have become such a popular floor covering. Many looms turn out grass rugs in various parts of Japan, but the articles handled by Strong & Co., who are not satisfied with anything but the best, are grass rugs made from the only power looms in Japan, and are not the uneven product of the hand looms, which turn out the bulk of the rugs shipped.

In their Hosiery Department, Strong & Co. have paid special attention to gloves, and have organised their own plant for cutting and finishing according to the latest Western factory practice. It is the boast of the firm that the gloves they ship are not inferior to the products of England and America. This excellence presupposes specialists. Strong & Co.'s glove superintendent, for instance, has been in this trade since a boy, having worked at the industry in practically every glove-making country in the world.

In Soft Goods, Strong & Co.'s growing capacity has more than kept pace with the growth of the textile industries in Japan. Their inspecting rooms show the variety in the output of the Japanese mills, for side by side, ready for packing, may be found high grade underwear for the English market,

next to the brilliant colours and bright stripes for the South Sea Islands. The bulk of the porcelain shipped from Japan comes from the Nagoya district, and with their usual enterprise, Strong & Co. have their own office in that porcelain centre, thus bringing their connections abroad one step nearer the producing market.

The General Manager for Japan is Mr. H. O. Hereford, stationed at Kobé. Mr. Hereford has had seventeen years' experience in Japan, and has been in general charge of the interests of Strong & Co. for over ten years. A firm believer in modern business methods, he has built up an organisation to be proud of. Though a busy man, Mr. Hereford still finds time for many civic interests, and has served as hospital director, and on important Kobé committees at various times.

SHEWAN, TOMES & CO.

THE firm of Shewan, Tomes & Co., of Hongkong, Canton, Shanghai, Tientsin, Kobé, Yunnanfu, London, and New York, is an example of the widespread nature of the business in which the large modern houses operating throughout the Orient are engaged. The head office organisation not only represents important shipping interests, and acts as agent for several insurance companies, but conducts a number of industrial enterprises, besides transacting a general business as import and export merchants. The Japan branch of the business has been established many years, with headquarters at Kobé. Under the control of the local manager are not only the general agencies for shipping and insurance, which the firm holds, but a multiplicity of other enterprises peculiar to Japan. One important branch of business in which they specialise is the manufacture of white momi pine boxes for packing case-oil, tea, and rubber.

Messrs. Shewan, Tomes & Co. are importers of machinery and mill supplies, piece goods, etc., and they handle for export such lines as mats, matting, jute, cotton, and wool rugs, matches, match splints, oil, tea and rubber box shoos, chemicals, electrical supplies, curios, and general produce. Imports are derived mainly from the United Kingdom, the United States, Australia, and China, and the exports go to the United Kingdom, the United States, Canada, South America, Australia, South Africa, India, Egypt, China, and elsewhere.

Mr. J. A. Young is Manager of the Kobé branch, which is located at No. 74-A Kyomachi, Kobé, and Mr. C. J. Williams is the Manager of the Export Department.



SHEWAN, TONES & CO.: THE KOBE PREMISES — MATTING INSPECTION IN THE GODOWN



WELL-KNOWN FOREIGN MERCHANTS OF KOBÉ

(Left to Right, Upper Row) R. F. STEPHEN, Acting Manager, Imports Dept., W. M. Strachan & Co., Ltd. — PETER FRASER, Sole Partner, Peter Fraser & Co. — S. E. GILES — H. O. HEREFORD, Manager, Strong & Co. — W. G. FOX, Manager, Exports Dept., W. M. Strachan & Co., Ltd. (Middle Row) P. H. MCKAY, Sole Partner, McKay & Co. — L. LAZARUS, Director, J. Witkowski & Co., Ltd. — L. MEYER, Director, J. Witkowski & Co., Ltd. — DOUGLAS COX, Resident Partner in Japan for Land & Cox. (Lower Centre) HENRI BLUM, President, J. Witkowski & Co., Ltd. (Lower Row) G. LAZZARA, Managing Partner, Lazzara, Homberg & Co. — M. THIECK, Managing Partner, Lazzara, Homberg & Co. — E. HOMBERG, Managing Partner, Lazzara, Homberg & Co. — E. A. HERRERA, Partner, Lazzara, Homberg & Co.; also Consul-General for Spain and Vice-Consul for Italy.

WINKEL & GEDDE, LIMITED

A HIGHLY important development of modern commerce has been the organisation of what are known as associated houses, that is, concerns whose operations link up, the one with the other, to cover practically the whole world, and to act for each other. Those houses place their entire buying and selling organisations at the disposal of the members of the combination, and when the necessity arises the combined capital is available. The advantages of such a system are apparent, and business association with one member house, necessarily means for the customer that he is linked up with any market in which he desires his principal to operate for him. The Danish firm of Messrs. Winkel & Gedde, Ltd., is the first

house in the East, established by this combination of export and import companies. The headquarters of the association are in Copenhagen, which is also the headquarters of Messrs. Winkel & Gedde, Ltd. At the back of this association is a very considerable capital, and its member, or associate, houses are located as follows: London, Paris, Genoa, Moscow, Copenhagen, Stockholm, Christiania, Cairo, New York, Buenos Ayres, Rio de Janeiro, and other commercial centres of importance. Each associate house, in its turn, has its branches scattered throughout the countries in which it specially operates.

Winkel & Gedde, Ltd., were established in Japan in 1916, not to participate in what may be called "war business," but as a permanent trading concern. They are general

exporters and importers, handling all classes of goods, raw material, as well as the manufactured articles. They have unique connections all over the world and through their associate houses they can either sell Japanese products to any country, or purchase for this market any goods that may be called for. The head office for Japan is at Kobé, where the business is under the management of Mr. O. Gedde.

E. H. HUNTER & CO.

IN the early seventies, Mr. E. H. Hunter, a native of Londonderry, Ireland, established the business which bears his name, and which has grown into one of the largest foreign concerns in Japan. Mr. Hunter arrived in Yokohama from Australia in 1867, and went



THE MOSCOW OFFICES OF THE ASSOCIATE RUSSIAN COMPANY OF WINKEL & GEDDE, LIMITED



E. H. HUNTER & CO.: HEAD OFFICE AT OSAKA — PREMISES OF NIHON SEIMAI SEIFUN KAISHA

to Kobé the following year, at the time of the opening of that port to foreign trade. He was not in Kobé very long before he became interested in the shipbuilding industry, which gave promise of considerable development, and some years later he established the Osaka Iron Works, which has grown into one of Japan's most important shipbuilding concerns. This enterprise remained the sole property of the Hunter family until it was converted into a limited liability company in 1914. Mr. Hunter was also the pioneer of the foreign rice trade, and himself erected the Nippon Seimai Mills at Hyogo, with which the firm of E. H. Hunter & Co. still has a close connection.

The firm's many activities include those of import and export merchants. They handle general lines, especially materials for shipbuilding, cotton spinning and other machinery, and, furthermore, are largely interested in the Indian cotton trade, selling direct to the principal mills. They are large importers of timber, mainly Oregon pine, and teak, and have their own yard and basin at Sangenya, Osaka. E. H. Hunter & Co. are also exporters of rice, both polished and raw, and "Hunter's No. 1 Polished" commands a premium on the London market. Produce of all kinds, and general merchandise is shipped by the firm to all parts of the world.

Mr. E. H. Hunter retired from business in 1916, but the operations of the firm are directed by his son, Mr. R. Hunter, who had been his partner for many years. Mr. R. Hunter's business interests are varied and widespread. He is the President of the Osaka Marine & Fire Insurance Co., Ltd., a Director of the Osaka Iron Works, is on the Board of the Osaka Shosen Kaisha, and is associated generally with the commerce and industry of Japan.

As stated above, Mr. E. H. Hunter was the founder of the Osaka Iron Works. In addition, he was the pioneer of many other enterprises, and has always been a good friend of the Japanese. To show appreciation of Mr. Hunter's energy and enterprise, the Directorate of the Osaka Iron Works, with the approval of the shareholders, have erected a statue to Mr. Hunter. The unveiling took place in 1915. The handsome bronze figure of the pioneer of shipbuilding, stands appropriately in the grounds of the Osaka Iron Works Company's new works at Sakurajima. It was executed by Mr. Sotokichi Aoki, teacher at the Technical School at Ishikawa-ken, with the assistance of Mr. Saburo Yoshida, a graduate of the Tokyo Fine Arts Academy. This statue is the only one ever erected in honour of a foreigner of the present day.

CHINA AND JAPAN TRADING COMPANY, LIMITED

To treat fully of the development and extent of the operations of the China and Japan Trading Company, Limited, would necessitate going far back into the history of foreign trade in the Far East. This company has been established in the trade between the Orient and America and Europe for over fifty years, and was incorporated in the State of New York in 1876. The name frequently occurs in the early history of trade with Japan, the company having been among the pioneer importing and exporting concerns in Yokohama and other ports, at a time when little or no idea was held of the subsequent development of Japan as a great commercial country. The company was one of the first and largest importers of American cotton, and still carries on this business, though necessarily on a smaller scale since the introduction of large quantities of Indian and other cotton. It was originally agent for the Standard Oil Company and established the business of that concern in Japan before the Standard Oil people opened their own offices. The China and Japan Trading Company, Limited, is also one of the best known houses on the Osaka and Kobé markets for metals of all descriptions. It is sole agent for the Selby Smelting and Lead Co., of San Francisco, California, and for the Consolidated Mining & Smelting Co., of Canada, Ltd., Traill, B. C., whose pig lead is handled exclusively by the company in the Japanese market. Other sole agencies are those of the Northern Aluminium Co., Ltd., of Canada, and the Aluminium Company of America, two of the largest producers of this metal in the world. Large yearly sales of aluminium ingots are made to the Japanese factories, which in turn make up the metal in various articles for export to India, the Dutch East Indies, Australia, the South Sea Islands, etc. The business has grown enormously since the commencement of the war, owing to the stoppage of supplies of utensils from Europe. A large quantity of aluminium is also used for the manufacture of shell fuses for the Russian armies. Aluminium foils for cards on which buttons are mounted, is another well developed branch of the trade, the consumption having largely increased in consequence of the difficulty of obtaining tin foil, etc. The company imports nickel in cakes, cubes, shot, etc.; pig iron, pig tin, and spelter. Business in the latter line largely died out after the stoppage of imports from Europe, and smelting is now being done in Japan from Australian, Chinese, and local ores. Heavy quantities of steel and iron, steel plates, sheets, galvanized sheets, wire,

nails, etc., and all sorts of construction material, are handled, and the company is licensed by the Japanese Government to import and deal in high explosives, ammunition, and fire arms. Dynamite, gelignite, gelatin, blasting powder, and gunpowder, used for mining and for railroad construction through the mountainous districts, are imported under this license, and the company has its own special magazines for the storage of such explosives. Extensive connections have been formed by the China and Japan Trading Company, Limited, with all the tanneries and leather factories in the various districts. These factories are supplied through the agency of the company with machinery and plant for tanning and leather working, and also with tannin preparations such as cutch, Argentine quebracho, sumac, chestnut extracts, and so on. Owing to the large orders placed in Japan by Russia for boots and leather articles of various kinds, this trade has increased tremendously, and the quality of Japanese tanned leather has improved very greatly of late years. The company is the sole agent for Turner Bros., Ltd., of Rochdale, Lancashire, England, War Office and Admiralty contractors, suppliers of asbestos goods of every description. A large import of crude asbestos, asbestos fibre and yarns for manufacture in Japan of asbestos packings and materials is handled by the company.

To mention some other lines of activity on the part of this old established concern, it may be said that the China and Japan Trading Company, Limited, is an importer of sago flour from the Straits Settlements and corn starches from America for supplying to the various textile mills in Japan for sizing purposes. There is also a special department for handling paints, varnishes, insulating varnishes, ships' paints, and anti-fouling compositions, the company holding the exclusive agencies for the Continental Varnish Co., of Newark, New Jersey, and the Woolsey Paint & Colour Co., of Jersey City, specialising in copper paints for the bottoms of wooden ships and wooden craft of all descriptions. The company is also sole agent for the Anglo-French Nickel Co., of Swansea, Wales, manufacturers of prepared oxide of cobalt, grey and black, which is imported in large quantities and supplied to the manufacturers of porcelain and enamel ware all over Japan. Liquid gold, enamels, and colours of all kinds for the ceramic industry are another important line. The company is the sole selling agent for the New York and New Jersey Lubricant Co.'s well known "Gear Brand" of non-fluid oils, only introduced into Japan within the last four years, and in spite of the competition



CHINA AND JAPAN TRADING COMPANY, LTD.: THE KOBÉ GODOWNS — THE KOBÉ OFFICES — THE OFFICES AND GODOWNS AT OSAKA

of long-established lubricants, these lines have made immense strides in the favour of the Japanese works and mills engineers. A special department exists for the handling of drugs and chemicals and essential oils, and the company imports practically every drug that has ever been marketed from all parts of the world, wherever produced. Chemicals are also imported for the laboratories and dispensaries, as well as for commercial purposes, the main lines of the latter being chlorate of potash and phosphorus for the match trade, cyanide for mining purposes, caustic soda, bichromate of potash and soda. The China and Japan Trading Company, Limited, also markets the well known products of the Fellows Medical Co., of New York, and Lanman & Kems Florida water. Other imports are general lines such as tools, ropes, and shipchangers' stores.

Among the exports of the company are refined antimony, copper, potato starch, rice starch, wheaten starch, cotton yarn waste, vegetable and fish oils of all kinds, matches, sulphur, and sundry Japanese manufactures. These are shipped to Europe, America, and other parts of the world. Cotton yarns and textiles manufactured in Japan are exported to China. Since the reduction in supplies from Europe, owing to the war, Japan is manufacturing many drugs which were pre-

viously imported and is not only supplying her own domestic requirements, but is also exporting largely such items as iodides, iodoform, naphthalene, acetic acid, caffeine, copper sulphate and chlorate of potash, all of which the China and Japan Trading Company, Limited, ships.

A further department of activity on the part of this company is insurance, agencies being held for the Sun Insurance Office of London (established 1710), and the Phoenix Assurance Company, Ltd., of London, for both fire and marine business. The business of this well organised company is extending year by year. There has been a dropping off in certain lines, owing to the war, and the changes in the industrial and economic situation of Japan, but other avenues of trade have been opened up in their place, and bid fair to develop satisfactorily and remain permanent.

The head office and directorate of the China and Japan Trading Company, Limited, is at No. 80 Maiden Lane, New York, and branches are maintained at London and Manchester, England; Shanghai, China; Yokohama, Kōbe, and Osaka, Japan. The Kōbe branch of the company, with extensive offices and godowns, is at No. 88 Naka Machi in the former foreign concession of Kōbe, and at No. 20 Nakanoshima, Osaka.

The Kōbe branch operates through the south of Japan, that is, all the business south of Nagoya, and in the Hondo Islands, and also Kyushu and Shikoku. Business in the districts north of Nagoya is cared for by the Yokohama branch of the company. Mr. Darwin R. Aldridge is the President of the company.

IWAI & CO., LIMITED

This import and export business was established in 1898 as a personal proprietary, the founder being Mr. Katsujirō Iwai, who was one of the originators of direct foreign trade from Osaka. Mr. Iwai had had considerable experience in all lines of Japanese produce and manufactured goods, and though the capital employed to start with was the comparatively small sum of Yen 20,000, the business was almost immediately successful, and since then had grown to very large proportions. From a private firm, the enterprise was changed into a limited liability company some years ago, the present capital being Yen 2,000,000, and the reserves Yen 925,000. Iwai & Co., Ltd., carry on a varied business as importers, exporters, and general merchants. The head office is at No. 43, 4-chōme, Kitahama, Higashi-ku, Osaka. There are branches and factories at Osaka, Kōbe, Tokyo, Yokohama, and



VIEW OF OSAKA SOUTHWARD FROM THE ROOF OF MITSUKOSHI, SHOWING HIGASHI-KU AND MINAMI-KU IN THE DISTANCE



THE FINE KOBÉ OFFICES AND GODOWNS OF IWAI & CO., LTD.

Fukin in Japan, and foreign branches at New York, Shanghai, and Hankow, with an agency in London. Among the principal imports are sheet steel, bars, angles, joists, and similar metal manufactures for ship-building or general construction work, sheet zinc, tin plates, lead, iron scrap and billets, sheet tin and tin ingots, glass, wool, wool tops, pulp, paper and general textiles, chemicals, drugs, and dyes. Exports comprise general produce, such as peas, beans, rice, vegetable oils, manufactured metals and hardware (galvanized sheet steel, zinc slabs, antimony, etc.), straw, chip and hemp braids, Panama hats, habutai (piece goods and handkerchiefs), raw silk, cotton piece goods, celluloid and celluloid articles, matches, acetic acid, window glass, timber, and a host of other lines. Raw materials required for the company's factories are imported from America, Europe, and China, and the export trade is mainly directed to America, Europe, China, Australia, British India, Java and other islands in the South Seas.

When the company was formed, the stock was mainly taken up by Mr. Iwai and his relatives, and the interest of the employees was cared for by the distribution of a quantity of the shares among the heads of the various departments. The principal officers of Iwai & Co., Ltd., are: President Director, Mr. Katsujiro Iwai; Chief Managing Director, Mr. Yuzuru Yasuno; Managing Directors, Messrs. Toyoji Iwai and Yaichiro Fukuzawa; Director, Mr. Umetaro Iwai, and Auditors, Messrs. Washitaro Nagashima and Tametaro Imoto. The head office building is a fine brick and stone edifice. Iwai & Co., Ltd., give employment to about two hundred assistants and workmen.

CHO. ITO & CO.

DESPITE the fact that this firm was only established in May, 1916, it has already attained to a commanding position in business circles in the west of Japan, and ranks in financial importance with such large concerns as Suzuki & Co. and others. Not

only does the firm do a considerable foreign trade in imports and exports, but it has been developed along the right lines, embracing in its operations such important interests as mining, shipping, manufacturing, and financing.

The founder of the firm is Mr. Chozo Ito, brother of Mr. Chojiro Ito, ex-member of the House of Peers, and one of the richest landowners and highest taxpayers in Japan. Through the family connections Messrs. Cho. Ito & Co. therefore have unlimited financial backing and influence, and it is not surprising that they have developed such a remarkably strong position in the course of two years. Mr. Chozo Ito was born in 1887, at Imaichi, Harima. He was graduated from the Kobé Commercial College in 1910 and took the professional course of the Tokyo Commercial College, from which he was graduated in 1912. From 1913 to 1915 he served in the Army and obtained his commission as sub-lieutenant. Shortly after leaving military service he



THE PICTURESQUE RESIDENCE OF MR. C. ITO, PRESIDENT OF CHO. ITO & CO. — THE PRIVATE OFFICE OF MR. CHO. ITO

started on his business career, and soon attracted attention as one of the most brilliant of the modern younger commercial men. When he founded Cho. Ito & Co. it was realised that Mr. Ito had realised his great opportunity. His keen observation had noted the effects of the world war, and he saw many lines in which business enterprise could be profitably directed. In forming Cho. Ito & Co., he called a number of capable and experienced business men around him, and within one year he had placed the firm in a very proud position as the leading trading concern in Kobé. Mr. Chozo Ito is also the Managing Partner of the Ito Trust and Finance Company, a director of the Tai-sho Steamship Company, director of the Ocean Transport Company, director of the Japan Spun Silk Mill, and director of the Japan Oil Manufacturing Co., of the Japan Asbestos Slate Manufacturing Co., of the Peninsular Rubber Estate and Finance Co., and of the Sanjuhachi Bank. Furthermore, he is one of the principal stockholders of the Toa Crucible and Graphite Company and also the owner of a number of copper, tungsten, and graphite mines. Even if it be admitted that Mr. Ito has had a splendid training in the science of modern business, it must be realised that for a man scarcely thirty years of age to hold so many responsible positions, while at the same time directing a vast enterprise like Cho. Ito & Co., speaks volumes for the capability and business acumen of the man.

Messrs. Cho. Ito & Co.'s business is divided into well organised departments. The Trade Department principally engages in the direct import and export of general merchandise, manufactures, and produce. The main lines are mineral ores, metals, and metal wares, cereals and other natural produce, oils, chemicals, camphor, skins, hides and leather, cotton yarn and cotton piece goods, woollen goods, raw silk, silk goods, sugar, gunny bags, and curios. The monthly value of the goods handled by this department reaches over Yen 3,000,000. Trade is conducted through direct branches in Russia, China, the South Seas, and America and through despatch offices which are situated at Tientsin, Shanghai, Harbin, Changchun, Osaka, and Seoul. Arrangements are now being made to establish branches at London and New York.

MINING DEPARTMENT. Through this department such lines as copper, graphite, tungsten, molybden, and coal are handled. The department also has under its control the firm's own mine at Kaina, Tokushima Prefecture, and also some fifty or sixty properties in which Messrs. Cho. Ito & Co. have the mining rights.

SHIPPING DEPARTMENT. In this section of the business, the sale, purchase, and chartering of ships is conducted. Messrs. Cho. Ito & Co. have three vessels of a tonnage of 7,000 under construction, and have charters over six vessels of a total of 27,000 tons, which are engaged in the trade with North America. It is planned to establish a Machinery Department at an early date. Messrs. Cho. Ito & Co. also own the follow-

with other countries. The business was founded by Mr. S. E. Giles, an Englishman, who came to Japan over sixteen years ago to join a British firm, of whose Kobé office he subsequently took entire charge. In 1908 Mr. Giles started as a merchant on his own account, and, with considerable experience at his command, as well as a wide knowledge of the requirements of foreign buyers, he quickly realised a large



SCENES ON THE JOHORE ESTATE OF THE PENINSULAR RUBBER & FINANCE CO., LTD.
(CHO. ITO & CO.)

ing concerns: (A) The Ito Kigyo Goshi Kaisha, with a capital of Yen 1,000,000, which is a financial organisation for the accommodation of industries and businesses with funds, and for the sale, purchase, and acceptance of bonds, etc., as well as for investment in business. (B) The Toa Crucible and Graphite Co., Ltd., with a capital of Yen 500,000, engaged in mining graphite and the manufacture of crucibles. This company has an extensive graphite field at Heiando, Korea, and a big factory at Imaniya, Osaka. (C) The Hanto Gomu Kigyo Kabushiki Kaisha, with a capital of Yen 1,000,000, which has a rubber plantation of 2,000 acres in Johore, Federated Malay Settlements. (D) The Takuma System Boiler Manufacturing Co., which manufactures boilers under the Takuma system.

The head office of Messrs. Cho. Ito & Co. is at No. 33 Kitanagasa-dori, 4-chome, Kobé.

S. E. GILES

THIS firm was established in 1908 in the business of import and export merchants, and has steadily expanded its operations

measure of success. In 1913 the present premises at No. 58 Naniwa Machi, Kobé, were acquired, and were considerably enlarged to meet requirements. At present the business occupies the whole of the three-storied building (with a newly built three-storied brick godown at the rear), in addition to which a separate department is accommodated at No. 4 Isogamidori, 1-chome, Kobé, where the firm has a two-storied building with spacious brick godowns for the transaction of the Australasian business. In 1916 Mr. Giles took over the business (of about twenty years' standing) of the late Mr. John F. Duff, including the entire staff and the premises at Isogamidori, Ono, where the Australasian import and export department is conducted. Mr. Giles is one of the largest shippers to South Africa and Australasia, and has also been shipping to Europe. He is now paying attention to America, Russia, India, China, and, in fact, every part of the world where a market is likely to be found for the various lines he handles. Each of the departments in this business is managed by a foreigner, who is



S. E. GILES: KOBÉ STAFF AND OFFICES — INSPECTION OF MATTING — EXAMINATION OF BLANKETS FOR EXPORT — BRANCH OFFICE AT ISOGAMIDORI, KOBÉ — A CORNER IN THE STRAWBRAID GODOWN



OWI & CO.: GENERAL VIEW OF THE FACTORY AT SAKAI, OSAKA-FU—VIEWS OF THE HEAD OFFICE AND GODOWNS, KOBÉ

ably assisted by an expert native staff, in close touch with the market. All goods are subjected to a rigorous examination by Japanese inspectors and the foreigner in charge of the department before shipment.

The Floor Coverings Department of the firm handles matting and matting rugs, straw, rush and grass mats, cotton, woollen, and jute carpets and rugs, rag rugs, and every description of Japanese-made floor coverings, stencilled and woven. The men in this department specialise in their own lines, and complete satisfaction to customers is therefore assured.

In the Braid and Hat Department Mr. Giles is specially fortunate in having at his service men who have been thoroughly trained—nay, born—in the business. Man being only human is liable to make mistakes occasionally in the selection and inspection of goods, but thanks to the skill and experience of the staff in this department, such risks are reduced to a minimum. As the name suggests, the department deals in straw, chip and hemp braids, and all kinds of hats such as imitation Panama, straw, etc.

In the Cotton Goods Department some of the lines handled are: singlets, underpants, socks, gloves, table cloths, serviettes, doyleys, towels, sheetings, counterpanes, bedspreads, drawn thread work, crepe piece and made-up goods, shirts, pyjamas, kimonos, jackets, gowns, suits, dress material, curtains, thread, crochet cotton, yarn, waste, and all kinds of hosiery goods.

The Silk Department handles silk in piece and made-up goods, such as handkerchiefs, shirts, pyjamas, suits, dress goods, kimonos, gowns, ladies' underwear, silk socks and stockings, yarn, and every description of manufactured goods.

Exports through the Produce Department include timber, rice, beans, peanuts, peas, superphosphates, camphor, bamboo poles, straw envelopes, ginger, broom rushes, rope, twine, chemicals, etc.

Besides the lines already mentioned Mr. Giles has a department for handling sundry goods such as baskets, suit cases, blinds, brushes, porcelain, glassware, paper goods, toys, screens, furniture, vacuum flasks, leather bags and purses, cotton and jute

webbing, umbrellas, sunshades, walking sticks, gas mantles, tennis racquets, stationery, penknives, pencils, penholders, lacquer ware, antimony ware, brassware, bronze ware, enamel ware, cutlery, window glass, art curios, wire and wire nails, electric light fittings, chemicals and chemists' supplies, medical and surgical instruments, metal goods, bicycle accessories, buttons and press studs, and every description of Japanese manufactures.

The Australasian Department deals with all export and import business with Australia, New Zealand, etc., and the Russian Department is worked in conjunction with Mr. G. K. Kahn of Vladivostock, Dairen, Harbin, and Moscow, transacting all classes of export and import business with Russia and Manchuria.

Besides the export business, Mr. Giles is interested in the import into Japan of asbestos, wool, rice, Manchurian produce, beans, bean cake, metals, waste rubber, bones, bristles, horns, hoofs, skins, etc., and in addition to these he is prepared to take up any new lines on receipt of enquiries. As



LAND & COX: SCENE IN THE STRAW HAT GODOWN — PREPARING GOODS FOR EXPORT IN THE GENERAL FANCY GOODS DEPARTMENT

may be gathered from the above Mr. Giles transacts a widely varied business, calling for experience and close study of the different markets and commercial conditions generally, for its successful operation. That Mr. Giles possesses the confidence of the Japanese, and is regarded as a sound business man, is illustrated by the fact that he was for some time Honorary Adviser to the Mayor of Kobé. The post office address of the firm is P. O. Box No. 192, Kobé; telegraphic address "Giles" Kobé, codes, A. B. C. 5th, Western Union and Bentley's. Reference, the Hongkong & Shanghai Banking Corporation.

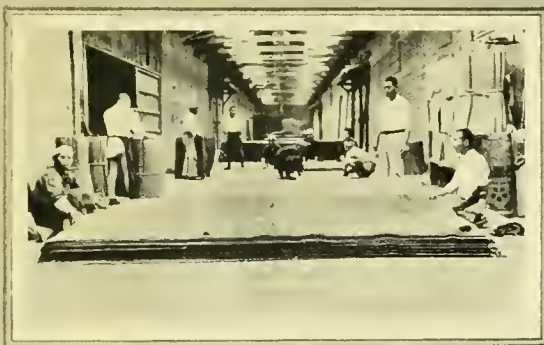
MCKAY & CO.

MCKAY & Co. of Kobé, Japan, was started as a merchant commission house in 1897, the business originally being mainly confined to the export of mattings, porcelains, and toys to the American market. As the industries of Japan developed to permit of the export of other lines of produce and manufacture, Messrs. McKay & Co. extended their markets to Europe, Australia,

New Zealand and elsewhere. To-day they ship to practically any point in the world where Japanese goods are in demand, and handle such lines as mattings, rugs of every description, toys, curios, glassware, silks, cotton goods, porcelains, all kinds of natural produce, drugs (both crude and manufactured), and in fact, every manufacture of the many Japanese industries which the outer world needs. The firm executes orders on a commission basis, buying to the best advantage in the centres of production, shipping under the best conditions, and conducting a thorough inspection of all articles before shipment, thus giving complete satisfaction to the buyer. McKay & Co. have special facilities for handling many varieties of mattings, and employ a number of expert workmen in this department of native industry. They have extensive godowns and inspection compounds adjacent to the head office which is at No. 49 Harimamachi, Kobé. Sample offices are maintained by the firm at No 1170 Broadway, New York. Intending purchasers are invited to write for samples and prices.

OWI & CO., OSAKA AND KOBÉ

SINCE the time of the predecessor of Mr. T. Owi, Owi & Co., Osaka, have been large manufacturers of all kinds of glassware, especially of glass bangles, on an enormous scale. Mr. T. Owi entered upon export business in September, 1913, when he established Owi & Co., Kobé, under the supervision of his partner and the general manager, Mr. M. Hira, who has over thirty years' experience in the export trade of Japan, particularly in manufactured goods and natural produce. Owi & Co. have offices and godowns in Kobé, and their factories are at Sakai, Osaka-fu. The land and buildings, which cover 156 *tsubo* in Kobé, are their own property, and on the site of the Kobé office, at 59 Naniwa-Machi, Kobé, a handsome three-storied building has been erected. Owi & Co. confine their business almost entirely to exports, handling a large volume of trade, including the products of their own factories. Their main lines are agricultural produce, metals, fish oils, isinglass, starch, ginger, peanuts, bleaching powder, caustic soda, camphor, menthol,



MCKAY & CO.: A FINE DISPLAY OF PORCELAIN FROM THE FIRM'S NAGOYA SHOWROOMS — A SCENE IN THE MATTING GODOWN —
STENCILLING IN THE MATTING GODOWN — PACKING PORCELAIN WARE AT THE NAGOYA GODOWNS

vegetable wax, sulphur, and chemicals. The manufactured goods dealt in for export are cotton piece goods, singlets, towels, socks, blankets, and sundries such as buttons, brushes, electric ware, glassware, mattings, matches, porcelain, writing and printing papers, rugs, straw and chip braids, tea chests and so on. A competent staff of departmental heads is employed, and the general employees number thirty. An exten-

sive overseas trade is done with British India, Australia, South Africa, the United States, and Canada. Mr. T. Owi is the principal of the firm. This firm has developed a healthy business in less than five years and enjoys a commendably high reputation in the trading community.

LAND & COX

This firm of commission agents, and import and export merchants, was formed on January 1, 1915, and with a lengthy experience of trade in Japan, and the requirements of foreign markets, on the part of its principals, it has developed an extensive business. Messrs. Land & Cox have given

special attention to one or two branches of the export trade, in which they have been conspicuously successful. These are the hat and button industries. Since the foundation of the firm they have been among the three largest shippers of hats made in Japan under their own direction, and they are probably the largest shippers of buttons, a trade which has developed to a remarkable extent in the last few years. Messrs. Land

tageous position for obtaining the highest prices for the dealers in, and users of the shell. The large and experienced staff of the firm enables them to handle any volume of business, and the extent of their operations permits them to quote the lowest prices available for goods for export abroad. It has always been the policy of the firm to pay cash immediately on delivery of goods by the various suppliers, thus instilling con-



KOBÉ OFFICES AND GODOWNS OF PETER FRASER & CO.

& Cox handle annually an enormous quantity of buttons of all kinds, shipping them extensively to all parts of the world, but principally to the United States, which is also the largest market for hats. In general export lines the firm handles extensively such items as brushes, toys, glassware, porcelain, copper and brass ware, leather goods, straw, chip, and hemp braids, and general produce.

Messrs. Land & Cox are also interested in imports to Japan, the principal line being Trocas shell, used for making buttons. They are particularly well placed for handling consignments of shell, as their large button business gives them the most advan-

fidence in the stability of the concern, and inducing dealers to quote the lowest prices for their products.

Included in the various business operations of Messrs. Land & Cox is the agency for the Palatine Insurance Co., Ltd.

Mr. Douglas Cox, Managing Partner of the firm's business in Japan, was born at Luton, England, in 1881. He came to Japan in 1903 and entered the service of Messrs. Strome & Co. of Yokohama and Kobé. He was Manager for that firm, and later for Messrs. Strome & Co., Ltd., from January, 1906, until he formed a partnership with Mr. David Land in January, 1915. The new firm took over the business of Messrs.



J. M. MACDONALD & CO.: THE HAT DEPARTMENT—VIEW IN THE COMPOUND

Strome & Co., Ltd., at Kobé. It may be said that Mr. Cox was brought up in the straw braid and hat business, and his general knowledge of the export trade of Japan is extensive and sound. Mr. David Land is in charge of the firm's office in New York. The address of Messrs. Land & Cox is P. O. Box 112, Kobé. Their bankers are the Hongkong & Shanghai Banking Corporation and the Chartered Bank of India, Australia, and China.

PETER FRASER & CO.

THE business of Messrs. Peter Fraser & Co. of Kobé has been established about ten years, and was founded by Mr. Fraser, who has had twenty years' experience of the Japanese export trade, and the different manufacturing industries in whose products his firm specialises. In addition to the regular lines which are generally handled by the foreign export merchants, this firm has several departments, under expert buyers, dealing exclusively in such manufactures and products as the following: (A) Engineers' supplies in brass, copper, and zinc rods,

tubes, sheets, etc.; valves, fittings, castings, sheet lead, lead pipes, cotton waste, crucibles, machine-tools, brass-foundry, electrical fittings, wires, cables, etc. (B) Rubberestates' supplies such as tapping knives, latex cups, latex coagulating pans, porcelain coagulating-tank fittings, acetic acid, rubber machines, *momi* and veneer cases. (C) Porcelain, glassware, and enamelled ware of all kinds, gas and electric-light fittings and industrial chemicals. (D) Cotton blankets, counterpanes, towels, underwear, crepes, etc. There is also a department entirely devoted to floor coverings in jute, cotton, wool, and rush material. Peter Fraser & Co. are the sole selling-agents for the celebrated "Dixie" (seagrass) rugs and runners, which are the most artistic, hygienic, and economical rugs on the market. For many years the firm has devoted special attention to the brush business, and Peter Fraser & Co. export in large quantities tooth and hair brushes, military and cloth brushes, and numerous household lines in brushware generally. The firm has extensive offices and godowns at No. 113 Kita-machi, Kobé, the premises

being among the finest and most commodious in the former Foreign Settlement, nevertheless the business has expanded to such an extent that to meet the steadily increasing requirements of their connections, they are now increasing their personnel and securing additional office and warehouse accommodation. The firm's bankers are the Hongkong & Shanghai Banking Corporation.

J. M. MACDONALD & CO.

THIS company was established on January 1, 1916, and took over at that time the entire organisation and general export business of Messrs. Smith, Baker Company, who with their predecessors, Messrs. Smith, Baker & Co., had been established in Japan as far back as 1868. Mr. J. M. Macdonald, the proprietor of J. M. Macdonald & Co., was connected with the earlier companies for more than thirteen years and was their Manager for Japan.

Messrs. J. M. Macdonald & Co. maintain offices and godowns at Kobé, Osaka, and Yokohama, and carry on a large general export business from Japan, maintaining a

competent staff of inspectors in their various lines of merchandise

In addition, the firm are agents at Osaka and Kobé for the South British Insurance Co., Ltd., both Fire and Marine Departments, and for the Guardian Assurance Co., Ltd., Fire Department. They also act as marine settling agents for the Guardian Assurance Co., Ltd., Marine Department, the Eastern United Assurance Corporation, and the Farmers Co-operative Insurance Association of New Zealand, Ltd.

ISRAEL & OPPENHEIMER, LIMITED

THIS is one of the important and active foreign companies that have realised the strength of Japan as a field for investment in manufacturing enterprise, and have contributed largely to the development of industries that may be considered natural to the country, but only requiring foreign direction and modern methods to put them on a proper footing. Messrs. Israel & Oppenheimer, Ltd., are known in commercial circles as general merchants and commission agents in Japanese goods, but apart from their activities as merchants, they also direct very valuable industrial enterprises covering the manufacture of buttons, hosiery, brushes, etc. The company is a London organisation of many years' standing. It was formed into a limited liability concern on February 26, 1912, with a capital of £51,250, and formally registered in Japan the same year, establishing its head office for Japan at Kobé, and forming a branch at Yokohama, with foreign branches and agencies scattered throughout the world. The company turned its attention specially to certain lines for which there was a strong foreign demand, and among these may be mentioned its development of the button-making trade, and the glove and hosiery industries. Apart from these special features of the company's operations, Messrs. Israel & Oppenheimer, Ltd., handle practically all lines of Japanese products and manufactures for which there is a foreign demand. They are kept closely in touch with overseas requirements through their representatives abroad, and it is hardly necessary to add that the business has been developed in a highly satisfactory manner. The company exports large quantities of buttons, gloves, brushes, hosiery, silks, chinaware, lacquer ware, fancy goods, etc. Shipments are regularly made to England, France, Italy, Switzerland, Spain, Holland, Russia, the United States, Canada, New Zealand, Australia, South Africa, Egypt and elsewhere. The head office for Japan of Messrs. Israel & Oppenheimer, Ltd., is at 98 Yedo Machi, Kobé, where the offices and godowns are situated. The godowns

cover an area of 9,000 square feet, and the offices, 2,000 square feet. Godowns and offices at Yokohama are at No. 242 and No. 75 D, respectively. All the buildings are of stone. The Kobé staff comprises ninety hands, and that at Yokohama, twenty. Mr. E. Ott is the General Manager for Japan. The foreign branches of the company are: London (head office); No. 314 Notre Dame West, Montreal, Canada; No. 37 Wellington St. West, Toronto, Canada, and New York City. Agents for Messrs. Israel & Oppenheimer, Ltd., are: Zurich (Switzerland), Mr. E. F. Koch; Milan (Italy), Mr. E. Pfau, and Paris, Mr. E. Rosenberg.

The principals of the company are the following Directors: Messrs. A. Israel, R. Oppenheimer, B. S. Godfrey, and E. A. Baines (London head office), H. Fiedler (Canada head office, Montreal), F. F. Bowe (United States head office, New York), and E. Ott (Japan head office, Kobé).

LAZZARA, HOMBERG & CO.

THE business of this well known firm comprises the amalgamation, as from the beginning of 1918, of the interests of two old established concerns, and the combination of operations formerly very closely allied by friendly relations. Messrs. Lazzara, Homberg & Co. trade as manufacturers, general merchants, importers, and exporters.

The former firm of G. Lazzara & Co. (Italian) was established ten years ago by Messrs. G. Lazzara and E. A. Herrera. Mr. Lazzara came from Italy in 1905 to develop the coral trade. He established himself in business with the aid of his friend, Mr. Herrera (a brother of Colonel Herrera, Military Attaché to the Spanish Embassy in Tokyo). The firm of E. Homberg & Co. (French) was established first by Mr. M. Thieck, head accountant from 1906 of an important French firm, which closed in 1911, owing to the general depression of trade at that period. Mr. E. Homberg came to Japan in 1913. He is related to the French family of financiers, so well known in America since the floating of the French-American Loan, when Mr. O. Homberg went to the United States to conduct the negotiations for that undertaking. Messrs. Thieck and Homberg entered into partnership, but had scarcely developed a prosperous business when the war broke out, and both partners were called to the colours and left Kobé for France at once, entrusting their interests and the full management of their business to their friends, Messrs. G. Lazzara & Co., with whom they had had the most intimate relations. A few months later, as Mr. Lazzara had to leave for Italy on business, and in response to his country's call, the whole burden of the

combined interests fell on Mr. Herrera. After three years' strenuous efforts and hard work for both firms, the relationship of the two concerns became so close that it was decided (on the return of Messrs. Thieck and Homberg, both wounded and unfit for further military service) to amalgamate the two businesses under the present name of Lazzara, Homberg & Co., the partners being Messrs. G. Lazzara, E. A. Herrera, E. Homberg, and M. Thieck. Mr. Homberg served in the French Army as a sergeant in the Black Troops, and Mr. Thieck, who was twice seriously wounded in action, was promoted to officer's rank in the *Dare-Devils* Battalion.

The amalgamation of the two concerns is the result of the unity of management of Mr. Herrera for nearly four years, during which period were developed the valuable interests so closely connecting both firms. The capital of the combined firm is Yen 1,000,000. They have godowns and factories at Kobé, Osaka, Tokyo, and Aomori, and branches in Manila, New York, Milan, Paris, and Shanghai. Principal lines of imports are chemicals, coffee, hemp, copra, old iron, rape-seed, linseed, ivory, cotton, elemi gum, gum olibanum, pepper, lumber, cotton seeds, wax hides, old rubber, gum tragacanth, cloves Phembo, cloves Zanzibar, casein, senna leaves, nux vomica, gingeli seed, castor seed, ground nuts, oils, tin plates, machinery, etc. Exports comprise all classes of Japanese metal manufactures such as copper and brass ingots, electrolytic copper, copper wire, brass and iron wire, and aluminium ware; glassware, enamelled ware, brass ware, nickel ware, camphor, chemicals, caustic soda, copper sulphate, iron sulphate, resin, starches of all sorts, bleaching powder, fertilizers, sulphate of ammonia, and superphosphates. Other lines are cotton piece goods, silk goods, raw silk, silk yarn, cotton yarn, hosiery, matches, celluloid goods, porcelain, hemp ropes, rubber goods, cement, tea chests, leather goods, paper strawboard, toys, bent wood furniture, dried ginger, and a whole host of sundry lines. These exports go principally to France, Italy, the Philippines, Indo-China, Russia, Africa, Egypt, America, China, the Straits Settlements, Java and elsewhere.

Besides their business in Japan, Messrs. Lazzara, Homberg & Co. are carrying on various departmental concerns in India and other countries, under various firm names, which establishments afford them ready facilities for business in other markets. The firm cultivates first-class connections only, amongst which is included the O'Brien Trading Co. of New York. Their agents in other countries are as follows: Bombay,



MESSRS. ISRAEL & OPPENHEIMER, LTD.: A SCENE IN THE GLOVE DEPARTMENT — WORKERS IN THE BUTTON DEPARTMENT —
VIEW OF THE KOBÉ OFFICES



LAZZARA, HOMBERG & CO.: THE KOBÉ OFFICES AND STAFF

Messrs. Mithabhoy Nathoo; Calcutta, Messrs. Singh, Sarkar & Co.; Colombo, Messrs. E. G. Adamally & Co., and Rangoon, Messrs. Y. A. Gany & Co. A clerical staff of over a hundred is employed by Messrs. Lazzara, Homberg & Co. Their present offices having become too small for the rapidly developed business, arrangements are being made for erection of a four-storied building, with underground warehouse, on a piece of land measuring 200 *tsubo*. This land is the property of the firm and is located in the most central part of the business area of Kobé. The firm banks with, and conducts most of its foreign operations through, the Yokohama Specie Bank. In the business world the trade mark "309," on the exports of Messrs. Lazzara, Homberg & Co., is generally well known as a brand of quality. The postal address of the firm is No. 309 Sannomiyacho, Ichome, Kobé.

THE UNION IMPORTING & EXPORTING CO., LIMITED

This company conducts an extensive import and export business from its head office at 26 Naniwa-Machi, Kobé, and through its

various branches and agencies throughout Japan and abroad, besides being closely associated through a sister company with the shipping interests of Japan. The staple lines of the Union Importing & Exporting Co., Ltd., are iron and steel, machinery, chemicals, crucibles, silk and cotton goods, natural products, animal and vegetable oils, ores and all kinds of industrial materials. Associated with the Toyo Shosen S. S. Co., this enterprising concern runs the steamers *Suehiro-maru*, *Nawa-maru*, and *Nireisan-maru* in home waters.

The Union Importing & Exporting Co., Ltd., has its own warehouses at Tokyo, Yokohama, Kobé, Changchun, Vladivostok, and San Francisco. Its branches and agencies are established at Tokyo, Osaka, Dairen, Hongkong, Shanghai, Harbin, Changchun, Vladivostok, Moscow, Petrograd, Odessa, Bombay, Calcutta, Marseilles, New York, Chicago, San Francisco, Seattle, Vancouver, Manila, Sydney, and Melbourne.

MIYABE & SUYETAKA

ALTHOUGH of comparatively recent origin the *gomei kaisha*, or partnership firm of

Miyabe & Suyetaka, has rapidly taken its place among the important importing and exporting concerns of Kobé, and its name is well known in the foreign business community. The partnership was established in 1916 by Messrs. S. Miyabe, of Yokohama, and K. Suyetaka and N. Imamura of Kobé. The head office is in Yokohama, and branch offices have been opened at Kobé and Nagoya. Practically all lines of imports and exports are handled, principal among the exported items being the following: porcelains, shell buttons, brushes, paper, cotton yarn waste, carpets, fans, silk goods, straw and chip braids, hemp braids, Panama hats, peppermint crystals and oil, camphor, vegetable wax, isinglass, Japanese furs, all kinds of Japanese curios and art goods, and general produce. These lines are shipped to the United States, Great Britain and her colonies and elsewhere, the firm having connections and representatives throughout the principal foreign countries. In return, Messrs. Miyabe and Suyetaka import iron, steel, and general merchandise.

The management of the business is in capable and experienced hands, the selection



THE UNION IMPORTING AND EXPORTING CO., LTD.: A CORNER IN THE KOBÉ OFFICES — THE STAFF AT KOBÉ

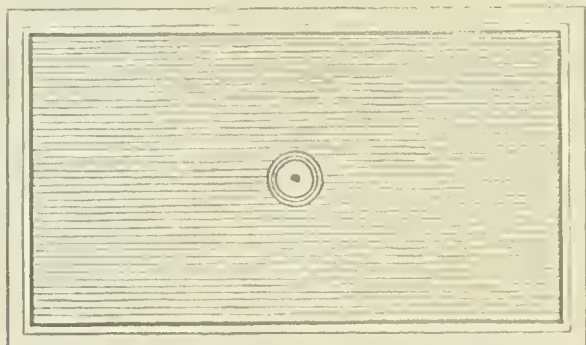


KOBÉ OFFICES AND GODOWNS OF MIYABE & SUYETAKA

and purchase of goods for customers being made in the different centres by the partners, who give their personal attention to all details. A large trade is being done, and the future of the firm is considered very bright.

KYOSHIN-YOKO

A LARGE volume of the export trade of Japan in cereals and general produce is done by this firm of importers and exporters, and in the course of the last few years their operations have been extended very widely throughout Siberia and Russia. The Kyoshin-Yoko was established at Kobé in 1901 by Mr. Kisaku Daiko, who is now President of the concern. Among the imports handled by the firm are chemicals, steel, iron, metal ware generally, hides, leather, fats, and other raw products brought from Russia, America, and other countries. The exports comprise rice, beans, peas, seeds, oils, bean cake and all kinds of grain. A rice mill has been established at Vladivostock, and there is also a warehouse and branch office at that centre. Other branches are at Harbin,



KYOSHIN-YOKO: THE KOBÉ OFFICE — GIRLS ENGAGED IN PICKING BEANS

Manchuria; Fusan, Korea; Moscow, Russia, and at Blagoweschensk and Habarousk, Siberia. Russia and Siberia are perhaps the best markets for the Kyoshin-Yoko, but the firm also exports largely to the United States, Canada, and elsewhere. The head office of the firm is at 4-chome, Sakae-machi, Kobé, Japan. Mr. Konosuke Iwahashi is the General Manager.

E. YOSHIDA

THIS firm was established in the Spring of 1917 by Mr. E. Yoshida, at Isobedori, in the eastern part of Kobé City. Mr. Yoshida has had a lengthy experience in the export and import business, and his knowledge of the trade in certain special lines, particularly Japanese produce, is admitted to be wide and extensive. Notwithstanding the short time the concern has been in business the results of its operations have exceeded even Mr. Yoshida's anticipations, and its operations have been developed in a remarkable degree. Branches have been opened at Yokohama and Otaru, and relations have been established with the principal countries to which Japanese goods are exported. Mr. Yoshida exports rice, bean, animal and vegetable oils, antimony, copper, cotton waste, straw, chip, and hemp braids, and curios, and imports iron and steel, bones, copra, coconut oil, tin, chemicals, drugs, dyestuffs, etc. Exports go principally to the United States, but Mr. Yoshida is now opening up business with sundry goods to South Africa, South America, and Scandinavia. Raw products, such as rubber, are being imported from the Straits Settlements and the South Seas, and an extensive trade in Japanese produce is done with London. The extent of these transactions is steadily on the increase. In all these lines Mr. Yoshida is thoroughly experienced, and is noteworthy for his careful handling of such items as chemicals, dyestuffs, and piece goods. Another special feature of the firm's operations is that in cases where it receives offers for lines it has not previously handled, it gives the closest attention to the trade so affected, and when the intricacies of the business are thoroughly mastered, the order is accepted and carried through with the most scrupulous care. It speaks well for the thorough methods of Mr. Yoshida that he has established the best of relations with the various dealers. The head office of this enterprising firm is at No. 3 Isobedori, Ichome, Kobé, Japan.

THE SHIMIDZU GOMEI KAISHA

OPERATING largely in the foreign export trade of Japan is the Shimidzu Gomei Kaisha, one of the oldest importing and



THE PICTURESQUE KOBÉ OFFICES OF E. YOSHIDA

exporting firms of Kobé. The business was established in 1884 by Mr. A. Greppi, and was maintained under the trade name of A. Greppi & Co. for a number of years prior to its reorganisation as a *gomei kaisha* under Japanese law. Mr. Greppi is still associated with the concern as its principal, and the partners are Messrs. Shimidzu Masu and O. Bruell. The General Managers are Messrs. S. Tedzuka and H. Maeda. With a capital of Yen 150,000, the Shimidzu Gomei Kaisha is a sound and stable concern, well able to carry on a general import and export business covering the markets of the world. The special lines dealt in for export to such countries as England, France, the United States, Australia, South Africa and elsewhere, are: hosiery, underwear, blankets, shawls, towels, silks, crockery, chemicals, hardware, brushes, carpets, matting, glassware, buttons, beads, basketware, curios and

fancy goods of every description. The head office of the Shimidzu Gomei Kaisha is at Isogamidori Ichome, Kobé, where the offices and godowns cover an area of 350 *tsubo*. From fifty to a hundred hands are employed, according to the season of the trade.

TSURUTANI GOMEI KAISHA

MR. CHUGORO TSURUTANI, founder and principal of the firm which bears his name, is one of the business men of Kobé who may rightly claim to have taken a large part in the development of the foreign trade of Japan. He entered into business on his own account in June, 1898, as an exporter, and was not satisfied merely to receive reports of conditions in foreign markets, but has made several trips abroad to study trade requirements, and get closely in touch with the ideas of his foreign customers. The



PAINTING THE PORCELAIN

as a consequence the firm's connections are extensive and valuable. There is hardly an order of any kind that can not be carried out with entire satisfaction, and the Tsurutani Gomei Kaisha, by specialising in certain lines, has built up a high reputation abroad. This is particularly so with porcelain. Mr. Tsurutani has arranged contracts with such well known manufacturers as the Shofu Porcelain Co. of Nagoya and the Nippon Ironstone China Co. of Kanazawa, for their output. This is shipped in large quantities under the firm's own guarantee of the highest quality, low price, and prompt delivery.

Messrs. Tsurutani & Co. have their own factory for the production of silk goods, embroideries and similar lines, and the lines handled are noted for their special qualities. Electrical instruments, insulators, etc., are manufactured and handled by the firm under contract with the Shofu Porcelain Co. and the Osaka Electrical Machine Manufacturing Co. of Osaka. The principal exports of Tsurutani & Co. are as follows: cotton and silk goods, porcelains, metal wares, matches, electric manufactures of all descriptions, enamel wares, hardware generally, and all

result of this special effort to cater for the trade between Japan and other countries, has given Mr. Tsurutani an experience second to none in the export business, and



KOBÉ PREMISES OF SHIMIDZU GOMEI KAISHA

kinds of natural produce. These are shipped extensively to the United States, Canada, France, Australia, India, the Straits Settlements, and China. The head office of the Tsurutani Gomei Kaisha is at No. 33 Nakamachi, Kōbē. There are branch offices at Yokohama, Shanghai, and Hongkong. The capital of the firm is Yen 50,000 at present, but it is proposed to increase this sum to Yen 250,000 in June, 1918.

C. CROWTHER & CO.

In classifying the export trade of Japan, it has been customary to distinguish the various trades as Silk, Tea, Matting, and Curios. The appellation of "Curio" shipper does not of necessity indicate that only antiques and art curios are being handled—the term is applied to shippers of almost every conceivable class of manufactured goods.

The firm of Messrs. C. Crowther & Company have been working as "Curio" shippers for twenty years, during which period they have built up a very wide connection—their shipments going to Great Britain, France, the United States, Australia, New



CARRYING PORCELAIN TO THE KILN

Zealand, British India, the Straits Settlements, and the Netherlands Indies. Mr. C. Crowther, who had been engaged in art work, including stained-glass and other



THE KŌBÉ OFFICE OF B. ORNSTEIN & CO.

decorative materials, came to Japan in 1894 as art and curio buyer for Messrs. A. A. Vantine & Company, and after a period of work for this well-known New York firm, opened in his own name and interest a general export and import business. Associated with Mr. C. Crowther is his son, Mr. J. P. Crowther.

This firm is shipping to a group of the principal department stores in the largest cities of the United States (including Messrs. Gimbel Brothers, New York, Philadelphia, and Milwaukee; The Emporium, San Francisco; The Joseph Horne Company, Pittsburgh; The J. L. Hudson Company, Detroit; B. Nugent & Brother, St. Louis; William Taylor, Son & Company, Cleveland; The R. H. White Company, Boston), as also to several wholesale importers in New York, St. Louis, Chicago, and other centres. This firm are also agents for Messrs. Selfridge & Company, Limited, London.

Shipments to the States include silk, mattings, carpets, Panama hats, straw braids, fans, brushes, baskets, metal ware, toys, and several lines of natural produce; to British India, cotton goods (such as singlets, towels, etc.) are shipped in large quantities; to Great Britain, straw braids, hats, baskets, etc.; to Australia, shipments include electrical goods and a very wide range of manufactured lines; to France, straw braids, and novelties; to Java, cotton goods, hardware, etc.

In addition to the manufactured goods generally classed as curios, Messrs. C. Crowther & Co. are also called upon for examples of modern and antique Japanese

art productions—in which both senior and junior members of the firm are particularly interested and well informed.

In addition to exporting, this firm does a considerable business in imports. For many

years the interests of Messrs. Lever Brothers, Limited, were in their care, and during the erection of the Lever Works in Japan Mr. C. Crowther's services were retained as adviser.

The firm has an influential position in Japan as Resident Representative for several prominent manufacturers, including Messrs. Johnson & Sons, Limited, Manufacturing Chemists, London; John J. Griffin & Sons, Limited; The Gem Dry Plate Company, Limited, London; Cadbury Brothers, Limited, Bournville; The Frasmic Company, Limited, Warrington; Yardley & Company, Limited, London; Marks & Cohn, Birmingham; Robert H. Foerderer, Incorporated, Philadelphia; Swallow & Ariell, Limited, Melbourne, and others.

As a long-time resident of Kobé, Mr. C. Crowther takes considerable interest in local institutions, being especially active on the committees of the International Hospital, of the Kobé Regatta and Athletic Club, and of the Kobé Amateur Dramatic Club, of which latter he is President.

Photography is Mr. C. Crowther's hobby and he uses his skill in this art for the raising of funds for charitable institutions, and has sent good donations to the British National Relief Fund. His attention is at present



TSURUTANI & CO.: PREPARING CURIOS FOR EXPORT IN THE FIRM'S GODOWN—
THE KOBÉ OFFICE



PORCELAIN AS IT COMES FROM THE KILN



OKURA & CO., LTD.: THE OSAKA OFFICE—THE KOBÉ PREMISES

given to the St. Dunstan's Hospital for Blinded Soldiers and to the American Red Cross Society. Mr. Crowther's work is recognised as of the advanced school of photography, and among the honours conferred have been a Fellowship of The Royal Photographic Society of Great Britain and the highest award for portraiture in the Toronto (1917) Salon.

OSAKA BUSINESS FIRMS

OKURA & CO., LIMITED

A FULL description of the business of Messrs. Okura & Co., Ltd., is given in the Tokyo section of this work. The Osaka branch is an important part of the company, and it transacts a large volume of business in all lines. These comprise the sale of merchandise generally, commission agencies, management of godowns, investments, manufacturing, mining and other industrial operations, and general finance. Okura & Co., Ltd., import electrical and other machinery and implements, metal manufactures, wool,

skins and hides, fertilizers, cotton, etc., from Europe, America, Australia, South Africa, and elsewhere, for domestic consumption. Exports consist of general merchandise, produce, and manufactures from Japanese factories. The company owns the Numazu Plank Mill at Jamatsu, Numazu, Shizuoka Prefecture, and the Sanyo Iron Works at Otake village, Hiroshima Prefecture. The Osaka branch office and godowns comprise a two-storied building at No. 28 Tsuriganecho Nichome, Higashi-ku. Other main branches are London, New York, Sydney, Shanghai, and Tientsin. Sixty employees are stationed at Osaka. (See also pages 211 and 799.)

TAKATA & CO.

THE Osaka branch of the Takata Shokai, or Takata & Co., is responsible for the transaction of a large volume of business conducted by this well known firm. Under the direction of Mr. Shin-ichi Ishikawa, General Manager at Osaka, the firm imports and exports all kinds of merchandise, and particularly handles the products of its own factories. Takata & Co.'s business was

originally established in 1869 by Mr. Shinzo Takata, who was one of the pioneer importers and exporters in Japan. After fighting a way through many early difficulties, the firm developed an extensive business, and to-day Takata & Co. rank with the foremost houses as general merchants and Government contractors. During the Sino-Japanese and Russo-Japanese wars, Takata & Co. rendered invaluable services to the Government, for which Mr. Takata, President of the concern, was awarded the Third Order of the Rising Sun. In 1909, owing to the great expansion that had taken place, the firm was transformed into a semi-partnership company, the principals being Mr. Shinzo Takata and his two sons, Messrs. Kamakichi and Nobujiro, the former being Vice-President of the company. Factories and works directed and managed by Takata & Co. comprise the Takata Ship Paint Factory at Ohsakimura, Tokyo-fu; the Yanagishima Iron Works, Tokyo; the Ohdera Zinc Refining Works, Fukushima-ken, and the following among other mines: Takata Mine (zinc and lead), Miyagi-ken;

Hiroo Zinc Mine, Hokkaido; Takakoshi Copper Mine, Tokushima-ken; Hiyoshi Copper Mine, Okayama-ken, and the Katsura Copper Mine, Hyogo-ken.

The head office of Messrs. Takata & Co. is situated at Eiraku-cho, Nichome, Kojimachi-ku, Tokyo. Branch offices are established in Osaka at Nakanoshima, Nichome, Kita-ku, and also at London, New York, Shanghai, Hankow, Dalny, Keijo, Taihoku, Yokosuka, Yokohama, Kobe, Maizuru, Kure, Moji, and Sasebo. (See also page 213.)

T. MASUDA SHOTEN

THIS business, which is an important branch of the Masuda family interests, has been in existence for many years, and is very well known all over Japan and abroad. Particular attention has been paid to flour milling, in which the Masudas have been prominent for nearly half a century, and the firm to-day is doing an immense trade, not only locally, but for export. The Masuda

Shoten, which is under the direction of Mr. Tasaburo Masuda, has the selling rights for several large mills, apart from its own plant, and handles about 300,000 bushels of flour per annum, representing a value of approximately Yen 3,500,000 in this line alone. The factory and godowns cover an area of 13,000 *tsubo*, the buildings being of four storeys. Allis-Chalmers plant and machinery is employed, the motive power being 200 horse-power. There is an expert staff of 53, and in addition 150 workmen are employed in various capacities.

As general merchants, importers and exporters, and manufacturers' agents, T. Masuda Shoten handle such import specialties as cereals, wheat, beans, rice, sugar, chemicals, drugs, pulp, hemp, jute, wool tops, raw cotton, woollen and linen yarns, metals, machinery, tools, hides and skins and tanned leather, various fertilizers, tallow, copra, rubber and so on, importing from Great Britain, America, India, China, and the

South Seas. They export rice, wheat, flour and all classes of raw products, oils and wax, cotton goods, matches, minerals, chemicals and drugs, timber and boxes, Portland cement, fire bricks and tiles, beers, mineral waters, hemp, chip and straw braids, and general sundries. It is indeed hard to say what T. Masuda Shoten do not handle in the way of imports and exports. Their trade has developed to a large extent in the course of the last few years, and they are continually expanding their operations in all directions. Through other branches of the Masuda family organisation, which is one of the most influential commercial concerns in Japan, the T. Masuda Shoten is closely in touch with every development of industry and commerce, and enjoys a high reputation.

The head office of the firm is at No. 5 Iwasaki-cho, Nishi-ku, Osaka. A warehouse is established at Nishino-machi, Satsumabori, Nishi-ku, Osaka, and there are other branches at Tokyo and Kobe.

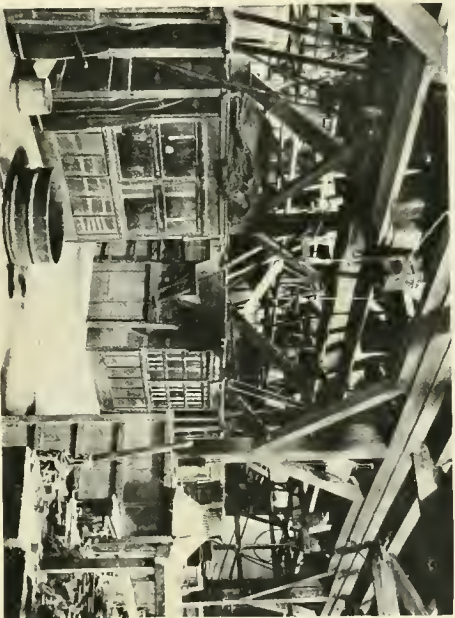
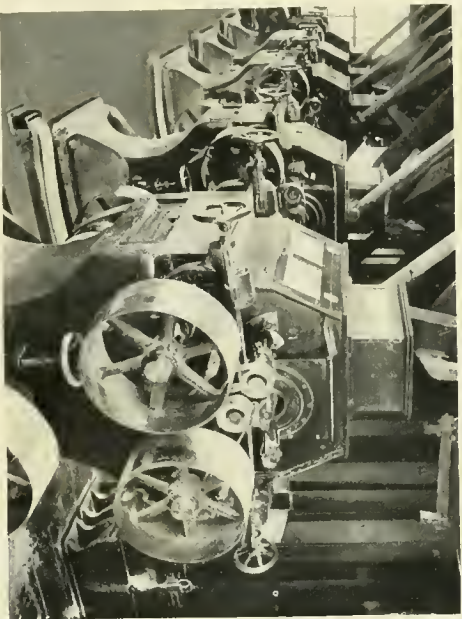
SHIMADA & CO., LIMITED

THERE are many lines of chemicals and drugs which are now being exported from Japan, and generally, it may be said, that since the outbreak of the war and the shutting off of European supplies, either of the raw materials or the finished articles, the Japanese manufacturers have developed their business to a remarkable extent. Prominent among the concerns particularly interested in this trade is Shimada & Co., Ltd., known in Japanese business circles as the Kabushiki Kaisha Shimada Shokai. The head office of this company is at No. 27, 2-chome, Koraihashi, Higashi-ku, Osaka, with an important branch at No. 6 Nichome, Honcho, Nihonbashi-ku, Tokyo. The company has its own factories and warehouses, and handles a wide range of products. Imports come from England, Sweden, Norway, the United States, Canada, and South America. Imported lines comprise paper pulp, nitrate of soda, sulphate of ammonia, caustic soda, soda ash and chemical stuffs generally. Messrs. Shimada & Co., Ltd., export such lines as foreign and Japanese paper, and material for paper-making, alum, alumina (chemically prepared), gum, resin, sulphuric acid, nitric acid, hydrochloric acid, cubic nitre, calcium carbide, artificial fertilizers, veneer chests, and "Star Brand" farming extracts.

Shimada & Co., Ltd., have an extensive foreign connection, and their customers are to be found in England, Australia, India, the Malay Peninsula, China, and Russia. The company was originally established in 1900, with a capital of Yen 250,000, but this has since been increased to Yen 500,000. Mr.



OSAKA BRANCH OF TAKATA & CO.



T. VASTDA SHOTEN: (ABOVE) VIEWS IN THE COMPANY'S FLOUR MILL—(BELOW) ONE OF THE FLOUR GODOWNS—A CORNER IN THE OSAKA OFFICES



OFFICE PREMISES OF SHIMADA & CO., LIMITED

Rintaro Shimada is President of the company and the other Directors are Messrs. Seizaburo Yoshitomi, Kiichi Yoshitomi, Manjiro Orihara, and Tadawo Sonoda. The company employs a staff of about fifty hands.

THE EAST INDIES TRADING COMPANY

THIS company, known in Japanese as the To-indo Boyeki Kabushiki Kaisha, is, as its name implies, engaged in all classes of trade with the East Indies, and controls a very large business of a varied nature. The company took over the entire interests of the East Indies Trading Company, Limited, some time ago, and at once enlarged the capital to Yen 500,000, and extended the operations of the old concern. The company's head office is at No. 55 Hamadori, Dojima, Kita-ku, Osaka, and among the various interests controlled are the transaction of insurance on buildings and the export of cargoes for well-known manufacturing concerns. Sole agencies are held for the Imperial Marine, Fire, and Transport Insurance Co., Ltd., and for the Asahi Glass Manufacturing Co., Ltd. Connections of

the East Indies Trading Company have been formed in Java at Semarang, Cheribon, Bandoeng, Garoet, Biora, Solo, and Djoedja; in Borneo at Jesselton, Bandjermassin and Pontianak; in the Celebes at Macassar, Menado; in Sumatra at Padang and Medan; in the Straits Settlements at Singapore and Penang, and at Kuala Lumpur. The company exports monthly about 600 tons of goods, valued at about Yen 200,000, the principal articles of trade being cotton yarn, cotton piece goods, metal wares, porcelain, paper, cement, glassware, and rubber goods.

The principal officers of the company are: President, Mr. T. Hamazaki; Directors Messrs. B. Ashimori, A. Watanabe, and S. Sakagami; Manager, Mr. I. Kitoh; Auditors, Messrs. H. Mori and M. Iwao; Advisers, Messrs. M. Doi and T. Takakura. The President, Mr. T. Hamazaki, is also President of the Southern India Rubber Cultivation Co., Ltd., and several other industrial enterprises. The other principal officials are members of the Osaka Chamber of Commerce, or of the Municipal Assembly.

Further, Mr. M. Doi, who is the President of the Osaka Chamber of Commerce, and Mr. T. Takakura, who is President of the Kitahama Bank, who are acting as advisers to the East Indies Trading Company, are both noted for their wide commercial influence and their business acumen. The present paid-up capital of the company is Yen 125,000, and the profitable nature of the operations may be gauged from the fact that the dividend paid for the period ended June 30, 1917, was 20 per cent, despite the fact that this covered only four months' operations.

Prior to March, 1917, when the trade with the South Seas was opened, the export of articles to the East Indies had been very brisk, and as a result cargoes were accumulated there. At this juncture the question of the black list arose, and Japan's trade with the East Indies was in a state of indecision for some time. The condition of affairs in this field underwent a change however, in March, and a brighter period dawned. The company's Manager made a tour of the East Indies, and investigated the



THE OSAKA OFFICE STAFF OF THE EAST INDIES TRADING COMPANY

situation thoroughly. A new field of trading operations was opened, and since then the company has received such a press of orders that it has had to deplore the lack of cargo space available. Nevertheless, the East Indies Trading Company established another branch at Batavia, in addition to the base of operations at Sourabaya, and is now trading with Singapore and Sumatra. The import of rubber from these latter centres was started, and this means a large future development. The Managing Director of the company has made a personal tour throughout the territory covered by the operations, and as a consequence of his report on the bright outlook it is anticipated, at the time of writing, that the company will make a further issue of capital stock in order to extend its influence. At the head office of the East Indies Trading Company a staff of eighteen clerks is engaged. In the despatch office at Sourabaya there are ten employees, and three are engaged in the new branch at Batavia. Godowns are maintained at Osaka and Kobé, and cover an area of 135 *tsubo*.

NIPPON TRADING SOCIETY, LIMITED

This concern was established in 1908, and originally dealt in cotton, cotton yarn, cotton piece goods, metals, wool, and chemicals, but an alteration in its internal organisation was made, and at present the concern principally handles camphor, rice, cotton, cotton yarn, cotton piece goods, and wool. The company enjoys a very large trade in camphor for military and industrial purposes, and the export of this commodity reached a

value of Yen 2,600,000 in 1916. Next in demand among the lines handled by the company is rice, both export and import, the quantity dealt in being very large. Trading in cotton is notoriously risky, owing to the violent fluctuations in price, but The Nippon Trading Society, Limited, handles annually about 10,000,000 yen worth, and its experience and skilfulness in the transactions has led to regular profits. Generally, American, Indian, Korean, and Chinese cotton is imported, with some quantity of Egyptian, and the company now has before it a plan to cultivate some portion of its



OSAKA PREMISES OF NIPPON SHOGYO KAISHA (THE NIPPON TRADING SOCIETY, LTD.)

requirements in Korea. In cotton piece goods, too, which are also subject to serious market changes and to involve traders in loss, this company is making regular profits by close attention to the trade.

The Nippon Trading Society, Limited, has agencies at London, New York, Hankow, Shanghai, Hongkong, Dairen, Tsingtao, Chefoo, and Tientsin, and is now extending its sphere of operations to Manila and India. Not only ordinary cotton yarn and piece goods, but silks, drill, jeans, printings, etc., are also dealt in. The company handles to a considerable extent Australian, African, American, and Chinese wool, woollen yarn, waste, woollen cloth, etc., and the trade is improving despite the great difficulties induced by the war, in the way of obtaining supplies from some of the foreign sources. The head office of The Nippon Trading Society, Limited, is at No. 3 Suyeyoshibashi-dori, 2-chome, Minami-ku, Osaka.

TATA, SONS & CO.

AN interesting phase of the development of the present large volume of trade between India and Japan is found in the history of the well-known firm of Messrs. Tata, Sons & Co., the prominent Indian merchants of whose business Sir Dorab J. Tata, Sir Ratan J. Tata, and Mr. R. D. Tata, are the principals. The head office of the firm is at Bombay, India, where a large business has been built up over a long period of progressive enterprise. The Japan branch office of the firm was opened at Kobé in 1892, with the object of promoting the trade between Japan and India, particularly in the direction of importing Indian cotton to supply the cotton spinning mills in Japan, then just coming into prominence. At this stage of Japan's industrial development only a limited quantity of cotton was imported, and practically the entire supply, small as it was, came from China. The late Mr. J. N. Tata took a personal interest in the development of his firm's business in Japan, and worked assiduously to introduce Indian cotton to the promising market of this country. Close attention was given to the cotton business and once the quality of Indian cotton was seen, a steady increase in its importation took place. The late Mr. Tata was instrumental in bringing about a combine of the Japan Cotton Spinners' Association and the Nippon Yusen Kaisha, for an exclusive transportation of Indian cotton to Japan, and under this arrangement it was agreed that no Indian cotton imported by those outside the combine could be used in the Japanese mills. This move proved more than a success, justifying the most sanguine



STAFF OF THE OSAKA BRANCH OF TATA, SONS & CO.

expectations of its effect upon the Indian cotton trade, and the nucleus of the highly important services of the Nippon Yusen Kaisha between India and Japan was laid in 1895. To-day the N. Y. K., and the conference liners are transporting nearly 1,800,000 bales of Indian cotton per annum. Subsequently steps were taken for the importation of Egyptian and American cotton, and this also proved a success. Messrs. Tata, Sons & Co. therefore have the credit of being the pioneers in the development of more than one source of supply, other than China, for the cotton trade of Japan.

The firm was also equally interested in the exports of coal, copper, camphor, and matches at the time of the combine, but lately Messrs. Tata & Sons have confined their export operations to Japanese cotton yarns, piece goods, and sundries, which are shipped in large quantities to China and India. In 1912 the Japan head office of the firm was removed from Kobé to the commercially more important centre of Osaka, from whence a general import and export business is now being done, chiefly in the lines mentioned above, including rice. Messrs. Tata, Sons & Co. also transact an extensive commission business. The Osaka office is located at No. 17, Kitahama San-chome. The head office of the firm is at Bombay, and important branch offices are maintained at London, New York, Paris, Lyons, Calcutta, Rangoon, Shanghai, Kobé, and Tokyo.

The partners of this enterprising firm are Sir Dorab J. Tata at Bombay, Sir Ratan J. Tata, London, and Mr. R. D. Tata, Paris. Mr. K. Yokoo is the General Manager for Japan.

THE NANYO RUBBER PLANTATION CO., LIMITED

THIS company, known by its Japanese title as the Nanyo Gomu Takoshoku Kabushiki Kaisha, owns the Langsat Rubber Estate in the Sultanate of Johore, Federated Malay States. It was founded at Osaka in May, 1916, with the object of carrying on a rubber and coconut plantation, and similar enterprises in the Malay States and the South Sea Islands. The authorised capital of the concern is Yen 2,000,000 of which Yen 700,000 is fully paid up. The company's estate at Tanjong Langsat, near Singapore, covers 2,000 acres. Of this area the greater part is already planted, and tapping has started over 500 acres, the present output of the estate being about 80,000 pounds of rubber per annum. When the estate is fully developed it will be a big producer and a highly valuable property. The principal officers of the Nanyo Rubber Plantation Co., Ltd., are: Mr. K. Yokoo, President; Messrs M. Kita, Y. Ueda, M. P., T. Hamasaki, and R. Harada, Directors; Messrs. T. Inouye, G. Takigama, and N. Nomura, Auditors. The company's bankers are the Bank of Taiwan and the Mitsui Bank. The head office of the concern is at No. 59 Nakanoshima, Gochome, Osaka.

TRADING DEPARTMENT, MITSUBISHI
GOSHI KAISHA, OSAKA

BRANCHES of the famous house of Mitsubishi operate to a great extent as separate enterprises, with a distinct profit and loss account, as do branches of important European and American enterprises; hence these details in addition to those supplied in the Tokyo section of this volume.

The Trading Department disposes of the products of the Osaka Metallurgical Works to the following extent: gold, 2 tons; silver, 30 tons; electric-copper ingots, 20,000 tons, and copper vitriol, 12,000 tons annually. The annual sales include the products of the Mitsubishi Iron and Steel Foundry in copper and brass goods, 100,000 tons of pig iron and steel, and the machinery manufactured by the Kōbē branch of the Mitsubishi Shipbuilding Co.

This office also holds the sole agency for the Kyoto Kabushiki Kaisha (carbide), the Nippon Tsusohiryo Kaisha (cement), and the Daide Needle Co., whose products, in addition to the above, they export through the medium of the company's branches in Europe, America, India, Australia, and the Far East. The firm of Dalgety & Co., Ltd., of Melbourne, Australia, and Messrs. Leon Hayhoe, Ltd., of Johannesburg, South Africa, are special agents of the Osaka branch.

About half a million tons of coal for factory use is sold through this branch annually. Other lines handled are cereals, fertilizers, cotton and cotton goods, drugs, all kinds of oil, paper, and glass, etc.

The Trading Department is under the management of Mr. Kyohei Kato, employing a staff of 66 clerks.

BANKING DEPARTMENT, MITSUBISHI
GOSHI KAISHA, OSAKA

FURTHER details of this bank, which is, as the title suggests, but a department of the Mitsubishi, and consequently one of the soundest financial institutions in Japan, will be found in the Tokyo section of this compilation.

The Osaka branch is located in the same building as the Mitsubishi Trading Department, occupying the ground floor, and carries a staff of 42 clerks, under the management of Mr. Toco Kato.

All departments of modern banking are represented, the bank being fortunate in first class agents in all parts of the world where they have not as yet established branches of their own. The capital of the bank is Yen 15,000,000.



OSAKA PREMISES OF MITSUBISHI GOSHI KAISHA, BANKING AND TRADING DEPARTMENT



GRAND STAND, NEGISHI (YOKOHAMA) RACE COURSE

XL. SPORTS AND RECREATIONS IN JAPAN

GOLF—YACHTING—ROWING—HORSE RACING—DRAMATICS—MUSIC

THROUGHOUT the Far East, wherever the white man has settled, with the growth of cities and towns and the building up of vast commercial enterprises, a feature of life among the foreigners that has never been allowed to rusticate, has been Sports and Recreations. In the line of progression a small plot of ground and a hut have developed, in later years, to a modern field and club house, and if this is true of the Far East generally, the country of Japan has been no exception to the rule. Fifty years ago in Yokohama sport in varied form was indulged in, but it was not until the formation of the Yokohama Cricket and Athletic Club that Sport in its many branches was started on an extensive scale. A fine plot of ground was acquired in what is now Yokohama Park, and for many years cricket, baseball, football, hockey, etc., were played in their proper seasons, a fine club house affording excellent accommodation. In 1910 the Japanese Government took away this ground and the foreign community, in spite of protest, was obliged to look for another field. At Yaguchidai, in the hills about fifteen minutes from the Bluff (the residential quarter of foreigners), several acres were purchased through subscription and transformed into a large athletic field that would be a credit to any city in the United States or Europe. A fine club house of reinforced

concrete, with all modern conveniences, was built, the club membership being over 250. From May until October of each year, cricket, baseball, and tennis matches are held continuously during the week-ends, followed in the autumn and winter by Rugby and association football and hockey. A feature of club sport throughout Japan is the spirit permeating intertown and interport contests in practically every branch of sport, and matches are also held in baseball, football, rowing, and hockey with Japanese university and school teams. A similar organisation exists in Kobé, the Kobé Rowing and Athletic Club and the Kobé Cricket Club being the two important clubs of this nature in the southern port. Yachting also comes under the activities of the former as well as tennis, though there is a distinctive club for tennis, as in Yokohama and Kobé. The Ladies' Lawn Tennis and Croquet Club is situated in beautiful gardens, commonly termed the "Bluff Gardens," Yokohama, and the Tokyo Tennis Club is about fifteen minutes from the station.

GOLF

GOLF is a branch of sport that has a large number of enthusiasts among foreigners in Japan. At Yokohama there is a nine-hole course in the hollow formed by the one-mile track of the Nippon Race Club, and members desiring to join the N. R. C. Golfing Asso-

ciation must first become members of the Race Club. Kobé golfers journey to Rokkusan, an elevated resort some three hours away, where a course of thirty-six holes is played upon except during the winter months. The course is one of great variety and beauty, but owing to the difficulty of growing grass at Rokkusan the "greens" are of dirt backed by banks, and it takes the stranger some time to become accustomed to this peculiarity of an otherwise interesting course. During the last four or five years a 36-hole course has been built on the outskirts of Tokyo, called the Tokyo Golf Club, and this is without doubt the best course in Japan, with plenty of green fairway and variety of interest. A small golf course is now in process of construction near Miyanoshita that promises to supply a long-felt want to golfers visiting this resort.

YACHTING

THE Treaty Ports forming the overseas centres of Japanese commerce were naturally on the seacoast, and, being selected for their safe anchorages, it was but natural that yachtsmen and their boating comrades made the best use of the favourable conditions, especially those existing in Yokohama, where a deep-water bay over one hundred square miles in extent, with several charming inlets, sheltered harbours, free from rocks (isolated or in reefs), without treacherous shoals, and



H. I. H. PRINCE NARUHISA, KITA-SHIRAKAWA-NO-MIYA, ACCOMPANIED BY H. B. M. AMBASSADOR THE RT. HON. SIR CONYNTHAM GREENE, G. C. M. G., K. C. B., ON THE NEGISHI RACE COURSE, MAY 10, 1918

untroubled by severe tide races, currents, or ocean swell, invited amateur wind-jammers to establish and develop one or more yachting clubs. The present (1918) American Consul-General is himself an enthusiastic devotee of yachting, having been for several years Commodore of the Yokohama Yacht Club, in which capacity he commanded a composite fleet of some twenty to thirty craft—from the comfortable “cruisers” of 40 l. w. l. and various rigs down to the less pretentious but perhaps more exciting “larks” and dinghies. Throughout the summer months, weekly or more frequent contests take place in the different classes, while occasional holiday cruises for the larger cabined craft sweep a wider field, even into the “open” and along the neighbouring Pacific inlets. The Japanese can not understand these eccentric foreigners, who seem to find genuine enjoyment in dashing about in small half-capsizing boats. It seems inconceivable that otherwise respectable and sane gentlemen should deliberately do such uncomfortable and undignified things, and although

baseball, tennis, and other activities have been adopted by Japanese college youths and the like, so far all efforts to arouse or create interest in yachting in the sons of Japan have been unsuccessful. No Cup Challenger or Defender has yet arisen in the Far East, neither can expensive, luxurious, speedy record-breaking pleasure craft be constructed in this part of the world, but Yokohama and Kobé have a good seasoning of more or less amateur designers and builders, who at times even venture to deviate from the lines of yacht-building classics. Ample scope for originality arises in the unfortunate fact that a typhoon of almost annual occurrence takes serious toll of lighter pleasure craft, and several new keels have, therefore, to be laid for each sailing season.

ROWING

IN the early seventies the Yokohama Amateur Rowing Club was started on a small scale. At the present time, with a membership of over two hundred and a modest but serviceable club house on the waterfront

next to the French Hatoba, the Y. A. R. C. has contributed a great deal to healthy exercise, particularly among the younger generation. The club also serves as headquarters for the Yokohama Yacht Club as it did in former years for the Mosquito Yacht Club. Interport contests are held annually with the K. R. and A. C., Kobé, which is a similar organisation, on a slightly larger scale, with a fine club house and tennis courts at Mirume, not far from the port itself.

HORSE RACING

HORSE racing was first started on May 2, 1862, under the auspices of the Yokohama Race Club, but the present Nippon Race Club course at Negishi was not granted to the community until 1866, through the efforts of Sir Harry Parkes, the first races being run in 1867. The membership started with ninety-two, and though affairs were conducted in more or less haphazard manner for the first few years, proper management later made itself felt. The Japanese Government took an interest in and assisted the club



THE INTERPORT GOLF TEAMS (KOBÉ AND YOKOHAMA) ON ROKKO MOUNT

with money contributions. Originally the horses used for racing or gymkhana purposes were hacks or service animals, but later different classes were established and China ponies for a while practically superseded the Japanese pony. In 1878 the former name was abandoned and the Nippon Race Club, in its present form, was founded, Messrs. J. J. Keswick, Kennedy, Kirkwood, and General Saigo being the principal promoters. With the building of a grand stand and stable accommodations and the starting of licensed Japanese riders, racing at Yokohama took a huge stride forward, and in April, 1886, the late Emperor Meiji attended in person. Ever since, either the late Emperor, the present Emperor (when Crown Prince), or, as in recent years, an Imperial Representative, has attended the various meetings held each spring and autumn, the "Emperor's Cup" being a trophy regularly presented, much valued, and keenly contested. The year 1888 was a memorable one as it marked the introduction of the *Pari Mutuel* in Japan, which was responsible for placing the club on a firm financial basis. Through dissatisfaction in the class of ponies, Australian horses were first imported in 1895, but it was not until 1899 that this was continued successfully. Owing to abuses in gambling, sweepstakes and lotteries were abandoned in 1907, and with the Nippon Race Club at the zenith of its career it came as a great shock in 1908 when the Baseikyoku (Horse Breeding Association) ordered the total prohibition of the *Pari Mutuel*, and this step, taking the main interest out of

racing in Japan (there being several Japanese clubs at Kawasaki, Meguro, and Naruo), threatened to be the death blow to any further activities. Subsidies were received, however, from the Baseikyoku, and in this way racing has been held each spring and autumn, but without the great interest that marked the earlier periods when gambling was permitted. During the last thirty years the Nippon Race Club has done more than any other in Japan to improve the breed of the native horse. Within this period it has taken no less than 475 Country Breds and imported well over 500 Australians. To-day visitors to a race meeting in Japan will find horses running which are the progeny of these imported animals, and the club may well be proud of the result achieved.

DRAMATICS

THERE are several amateur dramatic organisations among foreigners in Japan, notably the Amateur Dramatic Clubs of Yokohama, Tokyo, and Kobe, numerous performances being given each year, particularly at Yokohama and Tokyo. As early as 1881 an Amateur Dramatic Association was started in Yokohama, finally amalgamating with a similar society a few years later. The activities of the present Amateur Dramatic Club date from 1900, and during the last eighteen years this organisation has given thirty-six productions, including several musical comedies, comedies, farces, etc. Notable among past productions presented at the Gaiety Theatre are "San Toy," "Les Cloches de Corneville," and "La

Mascotte," all musical pieces, while "Niobe," "Dandy Dick," "Beauty and the Barge," "Dr. Wake's Patient," three Barrie plays, and "Mrs. Gorrings Necklace" are but a few of many successful plays that have been given. The Alliance Française, although a society for the extension of the French language, has given many dramatic performances of the greatest merit, of which the following may be mentioned: "Le Petit Café," "Une Soirée chez Molière," and "Triplepatte." Outside the activities of the various clubs, equally successful plays, extravaganzas, musical revues, etc., some of them original, have been presented by local residents. Among the many amateur performers mention should perhaps be made of Mr. G. G. Brady, an actor of unusual gifts, whose latest piece of work was the leading rôle in "Kismet" in 1917, the biggest and most spectacular production of the Tokyo Amateur Dramatic Club.

MUSIC

MUSIC among the foreign communities of Japan has held an important place in social life, as is usually the case in all Far Eastern cities, though it would seem that keenness for the classical and appreciation of music is relegated to a comparative few, the Japanese themselves, among the better classes, showing a greater desire for learning music and giving expression to their knowledge on instruments of the West. At Yokohama, some fifteen years ago, the Beethoven Society held numerous concerts of classical and chamber music, and even before this time the



A KOBÉ MINSTREL TROUPE, 1916

Philharmonic and Choral Societies occupied an important place in the community's activities. Unfortunately their existence did not cover many years, and though there have been attempts to revive the interest that previously existed, little or no success has attended the efforts of a few enthusiasts.

At Yokohama numerous concerts are given at which local talent contributes almost entirely, and since 1915 an amateur organisation, the Yokohama Orchestral Society, assisted by Japanese professionals, has given an annual orchestral concert with marked success, and promises to be a permanent

institution. At Kōbē there is a similar but smaller organisation, the Kōbē Amateur Orchestra, that gives frequent and exceedingly fine concerts. The Tokyo Choral Society has an active membership, and in recent years has given several oratorios both at Yokohama and Tokyo.





TOMB OF KIYOMORI, KOBÉ

XLI. PRESS AND PERIODICAL LITERATURE

NEWS IN OLD JAPAN—INTRODUCTION OF MODERN JOURNALISM—MAKE-UP AND CONTENT
OF LEADING JAPANESE NEWSPAPERS—"THE JAPAN CHRONICLE"
—"THE JAPAN ADVERTISER"—"THE JAPAN GAZETTE"

JAPAN is as well supplied with newspapers and magazines to-day as any country of the West. In the capital more than fifty daily papers are published, while the number printed daily throughout the Empire is more than eight hundred, with some eighteen hundred weekly and monthly periodicals, making a total of more than twenty-seven hundred. Indeed, there is scarcely a town of more than 10,000 inhabitants in the country that is without its local journal, and the larger provincial towns and cities are all well supplied with journals in proportion to the commercial interests of the place. In addition there are daily and weekly publications dealing with finance, commerce, naval and military matters, science, literature, or religion, to say nothing of the numerous monthlies covering a variety of themes. There are illustrated and comic papers, and papers for women and children, some of which maintain a high standard but many of which are anything save edifying, filled as they are with shameless scandal and gossip.

On the whole it may be said that the Japanese press has kept pace with the general progress of the country. Up to the time of the war with China the daily press was anything but prosperous, its readers confined to the more intelligent classes and scarcely including any of the lower orders of society; but with the spread of education and the growing activity of social, industrial, and commercial enterprise, and the interest in public affairs generally, even the poorest Japanese is to-day a regular reader of the daily paper. Thus within the present generation the number of newspapers has greatly increased, and some of them have considerably improved, certainly in the enterprise they display in news-gathering if not in the character and accuracy of their contents. Journals that twenty-five years ago were profitless ventures are to-day enjoying a large and profitable circulation and exercising an influence quite as powerful as corresponding dailies in Occidental cities. It is a question whether the daily paper has not even a greater influence in Japan than in

other countries, since it is the sole source of knowledge and opinion for the vast majority of the population. The Japanese possess a natural instinct for journalism, both in their love of gossip and their picturesque way of putting things, and the services of the daily journal are pushed to the utmost by all connected with its issue. In politics and international affairs the influence of the daily press is singularly potent, and the profession of journalism is not infrequently the preliminary to a political career. It attracts many of the best intellects, including some university graduates and leading statesmen, though the pecuniary rewards are meagre, even from a native point of view; nor is the social status of the Japanese journalist on a par with that of leading European newspaper men. On arriving in Japan many years ago the writer was somewhat overcome by a request from a prominent journal to supply a daily column at the rate of four shillings an issue. Naturally the Japanese press has elicited the services of women, even in journals

devoted to politics as well as those treating of social matters.

NEWS IN OLD JAPAN

THOUGH journalism in Japan is essentially an institution of Occidental origin, the idea of a medium for the circulation of news existed in old Japan, as it did in Europe, long before the invention of the printing press and the rise of modern journalism. Just as in the sixteenth century the Venetian Republic had its *gazzeta*, or treasuries of news, which were written by hand or printed from engraven blocks of wood, so the Japanese authorities of the Tokugawa period found means of keeping officialdom informed of the chief events of the Empire and the desires and intentions of the administration by using scribes and reporters. Thus the earliest form of newspaper in Japan had as aristocratic an origin as the gazettes of old Venice. Manuscript letters of daily events were even tolerated for private circulation as well as for sale. When the first of the Tokugawa shoguns, Iyeyasu, fought against

Ishida Matsunari in the famous battle of Sekigahara in 1600, the progress of the conflict was reported daily to the capital of the shogun at Yedo by a kind of news post. During the feudal days most of the daimyo kept an official reporter in the capital, whose duty it was to keep his master posted as to the chief events of the day, and these *rusui-yaku*, as the feudal reporters were called, arranged with the *boz*, or petty officials of the shogun's court, to keep them informed of the attendance or non-attendance of the ministers of the cabinet, and all other matters of significance transpiring from day to day. This was done on manuscript, and, indeed, the service was not unlike that of the press bureaux to be found at the various capitals of the world in modern times. A digest of all official proceedings and all official instructions was put into manuscript form and circulated among those entitled to such news. Feudal lords often despatched special news collectors to the shogun's capital to gather in detail the happenings of the day, somewhat after the manner of our present-

day special correspondents. Such was the method adopted for ascertaining or circulating official news. But for general and popular news the Japanese had their *gazzetas*, or *kawaraban*, small news sheets duplicated for sale. These sheets were printed from a tile, or *kawara*, in which the impression had been dried. Various other devices for printing the news came into use later. Often the daily news sheet was struck off from a wooden block, and there was another block made from hardened paste, known as the *mochiban*. The main items of news on these popular sheets seem to have been much the same as they still are in the cheap daily press — fires, murders, love-suicides, and all the more extraordinary occurrences of society. When Commodore Perry's fleet of "black ships" appeared in Yedo Bay in 1853, a news extra was issued informing the public of the unprecedented event. The results of a great earthquake were circulated in a similar manner. It was a great advance in the progress of these early attempts at journalism when the authorities allowed the



OFFICE OF THE "ASAHI" ("THE SUN"), HIGOBASHI BRIDGE IN THE FOREGROUND

publication of unofficial news sheets. These were known as *yomiuri*, which means literally, "read and sell"; and they were hawked about the streets like the modern newspaper extra, the seller reading portions of the news aloud and then inducing hearers to buy a copy. The contents were as terse as they were concise, no attempt being made at remark or criticism—a mere statement of facts only, without introduction or inference. Indeed, these primitive sheets were as unlike "The Spectator" and "The Tattler" as feudal Japan was unlike constitutional England.

INTRODUCTION OF MODERN JOURNALISM

It was not until the year 1861 that anything at all resembling the form of a modern newspaper appeared in Japan. Such was the *Batavia Shimbun*, so called because it consisted mainly of translations from Dutch papers published in Batavia. There was also a sheet called the *Chugai Shimbun*. Both of these ventures, however, appeared only at intervals and were more like a weekly or monthly than a daily paper. Japanese journalism in the more real sense of the word may be said to date from 1864, when a Japanese named Hikozo, who had been cast ashore on the American coast, returned and issued a news sheet at Yokohama, and though this news letter improved in collaboration with an assistant named Kisida Ginko, it soon ceased to appear. This publication, however, was printed on Japanese paper and had ten pages, being issued tri-monthly, and it paved the way for a more practical enterprise in the same direction. In 1867 Fukuchi Genichiro started a newspaper called the *Koko Shimbun*, which was followed by the *Banshoku Shimbun* and others, all printed from wooden blocks on native paper and coming out two or three times a week. The new Government, anxious to justify itself in the eyes of the samurai, who constituted a powerful political factor in those days, began the regular publication of a gazette, called the *Daijokwan Nishi*, or *Daily Record of the Council of State*, which was printed in a language too dignified for comprehension by the common people. This publication still continues in the form of the *Official Gazette*, which contains not only everything that appears in the paper of the same name in England, but also verbatim reports of parliamentary proceedings and full details of government measures and actions. In 1868 the *Koko Shimbun* took the side of the shogun and engaged in a spirited campaign against the Imperialists, when Fukuchi was arrested and brought to trial, from which he extricated himself with good grace and was acquitted; but the new Government

after this ordered the suppression of all newspapers, and journalism was at one stroke wiped off the face of the Empire.

The Government alone now had authority to issue news. The first newspaper under such auspices was started by Kido, the great statesman of the Restoration, in 1871, called the *Shimbun Zasshi*, or *News Journal*, in which was printed everything thought proper by the officials. It gave an account of a journey made by the Emperor through the streets of the capital, impressing the simplicity of the Imperial *entourage* in comparison with the imposing grandeur of that of the shogun and its inconvenience to the people. In 1869 a memorial was presented to the Government by Hosokawa Junjiro, later Marquis Hosokawa and Imperial Chamberlain, pointing out the importance of the press as a factor in the life of all progressive nations, and explaining the ways of journalism abroad. This had the desired effect. In a few months the ban against unofficial newspapers was withdrawn and their publication freely encouraged. Thereupon appeared the first *bona fide* daily newspaper in Japan, the *Mainichi Shimbun*, still one of the leading dailies of the Empire. In quick succession followed the *Nichinichi* and the *Hochi*. The true journalist is an artist as really as the poet or the painter, and is devoted to his art with a passion that neither ill-luck nor money can sway; and this is seen to be as true in Japan as elsewhere, for the names connected with the new dailies of Tokyo were the same that made the earliest ventures in journalism, Fukuchi and Dempei of the suppressed *Koko Shimbun*. Both the new dailies were issued with the encouragement of the Government, and were followed by others in Tokyo, which were established not only with the advice and assistance of officials, but with capital provided by prominent members of the Government. None of these early papers entered upon political discussion, nor tried to exercise any political influence. They were mere disseminators of news, sometimes of rather a crude type, and they only approached politics sufficiently to publish now and then an appeal or memorial to the Government, addressed by men of importance, urging certain reforms. Such memorials were always published without comment of any kind.

A radical departure from this policy was begun by a Scotchman named John Black who established a newspaper called the *Nishin Shinjishi* in Tokyo. He already conducted an English journal in Yokohama, but foreseeing the possibilities of vernacular journalism he started the new venture in the capital with the assistance of competent

native scholars. Being a British subject he enjoyed extraterritorial protection and felt free to carry on his paper just as it would be done in London. The journal was soon seen to be superior in all its features to the badly edited native sheets, containing as it did, not only all the news but critical leading articles that arrested the attention of the public. The office of the *Nishin Shinjishi*, or *Reliable Daily News*, became a recruiting ground for daily journals wanting competent newspaper men, and soon the same policy was adopted by the leading vernacular dailies of the capital. Thus the Scotchman, John Black, had an influence on Japanese journalism that has really been the cause of its present progress. About this time came into existence the *Yomiuri* and the *Choya* and the *Chugai*. The greatest Japanese newspapers had already been born, but journals of equal integrity and influence were still to appear. Up to this time party journalism did not exist. But between 1870 and 1880 there had been a tremendous development of public spirit and of interest in political affairs. Many of the large numbers of students sent abroad for education were now returning saturated with foreign ideas of constitutionalism and freedom, determined to make Japan like Europe and America. They engaged in the impossible task of trying to bring about in Japan, in the space of a few years, what it had taken centuries to accomplish in Europe. These agitators found the press their chief organ of propaganda, and so aggressive did the papers become that the Government was obliged to issue stringent regulations to curb the growing license. It was, however, difficult to control the vernacular press while the journal carried on by the Scotchman was free under the laws of extraterritoriality, and consequently the authorities descended to a ruse to get rid of Black. He was offered a tempting position as secretary to a parliament that did not exist as yet, and after he had accepted it, the British Minister was prevailed on to issue an Order in Council forbidding British subjects to engage in vernacular journalism, and then the Government quietly dispensed with the services of Black, his occupation now gone. A new law was promulgated in 1875 rigidly circumscribing the liberty of the press, violations of which were punishable by fine imposed on the editor and the writer and by suspension of the journal itself. The editors at first did not believe the Government would enforce the law, but they soon learned their mistake when leading editors were promptly arrested and sentenced to terms of imprisonment for unfavourable criticism of the Government. Between 1875 and 1877 there was almost a

constant procession of editors and journalists to prison. Prevented from speaking out freely, journalists now resorted to irony and allegory and the authorities were greatly put to it to know how to deal with writings the interpretation of which was ambiguous. The daily papers now also resorted to the device of having dummy editors to go to prison in place of the real editor who could not be spared, a custom still retained in Japan. Some of these vicarious victims received a higher salary than the editor himself, as it was not a popular profession. The authorities began to learn, too, the habit of buying up newspapers as the easiest way to control them.

With the rise of party politics and government journals, came in a new press *régime* and a new class of journalist. The journalistic camp became divided into what were called the greater and lesser journals, the former being devoted mainly to the discussion of politics, for or against the Government, and the latter independent and popular, with a very wide influence. The *O-shimbun*, or greater journals, had few readers because they not only discussed abstruse political theories, but they were printed in Chinese ideographs which most of the common people could not read. Among the more important of them were the Tokyo *Mainichi*, the Tokyo *Nichinichi*, and the *Hochi*. The *Ko-shimbun*, on the other hand, used *furigana* type to explain the ideographs, and printed stories and fiction for the masses, as well as woodcuts and spicy news items that appealed to the every-day man. The leaders in this new journalism were the *Yomiuri* and the *Miyako*. Each class of journal in time began to imitate the other, and this blending resulted in greatly improving Japanese journalism. Some of the leading scholars, politicians, and publicists of the day began to connect themselves with daily papers. The leading journals of Tokyo began to vie with one another in imitating foreign papers like those of London and New York. Men such as the late Mr. Fukuzawa, founder of the Keiogijuku University, established the *Jiji Shimpō* in 1882, which has ever since been regarded as the greatest paper in Japan. Many of the members of the Government were now men who had suffered fine and imprisonment in connection with journalism, and knew how to sympathise with the press. Press laws became more liberal and humane. At present the press enjoys the same liberty in Japan as in England, and unfortunately it too often takes advantage of this to indulge in the tactics of the yellow journalism of the West. It was not until after the war with China that the vernacular press of Japan began to take much interest in foreign

affairs, and now the influence of vernacular journalism on international affairs is very great. Sometimes, it is true, this influence is pernicious and seemingly wilful in deception of the public for partisan or national reasons, but usually it is potent in the right direction. Special correspondents are maintained at the leading capitals of the world, and communications from them appear regularly in the great dailies of the Empire. The larger news associations have their agents in Japan, who send and receive news from every part of the world. The Kokusai News Agency is a Japanese organisation which controls most of the news leaving Japan, having been especially organised for that purpose. Japanese business men have learned the value of advertising and the income from that source is naturally the largest revenue of the daily journal. The rates are much higher than those prevailing in Occidental countries, while the price of the papers is much less, being usually about one sen to two and a half. Extras are issued in case of special news. The papers are printed so as to appeal to the widest circle of readers, the ideographs being accompanied by syllabary interlineation rendering them easily intelligible to the most unlearned of readers. The common items of news are written in the colloquial as far as possible, the classic written language being reserved for the leading articles, or for philosophic or technical subjects.

MAKE-UP AND CONTENT OF LEADING JAPANESE JOURNALS

THE modern Japanese daily paper is produced on a revolving press much after the manner of the great metropolitan papers abroad. Only in the more remote towns do we notice now and then a news sheet struck off from the old-time hand press. The progress in this direction has been quite remarkable, especially when it is remembered that the first rotary press was imported by the Government Printing Bureau only in 1890, and the first paper printed in this way was the *Official Gazette*. The Tokyo *Asahi* and the *Jiji Shimpō* were the next to install rotary presses, and soon all the leading journals adopted such machines. A great drawback is the absence of any invention in the way of a linotype machine, which is hardly possible on account of the numerous ideographs. Illustration is a prominent feature of the modern Japanese journalism, woodcuts having mostly given way to photographs, though there are still plenty of sketches in caricature and burlesque. The content of the Japanese daily is racy of the native soil. Feature journalism is practiced to an extent unknown elsewhere.

All the Tokyo dailies publish two serial stories, one of present-day life and one of old Japan. Some morning dailies subordinate news and opinions to such features as a ladies' page, or children's page, or chats with readers, a magazine page, and so on. The editorial views usually reflect the instability of public opinion. For security regarding its opinions every Japanese newspaper has to deposit with the Government a sum ranging from £200 downwards, according to the size of the journal and the frequency of its publication, the authorities drawing from this fund whenever penalties are imposed. Suppressions are frequent, there being 453 cases in 1914, many of which related to news of military and diplomatic affairs. Some of the causes of fine or suppression are ridiculous, such as printing a cut of foreign nude statuary, or touching upon law cases under examination. The dailies are delivered at the door every morning by boys, running with bells at their girdles.

The leading Tokyo dailies are the *Asahi*, the *Jiji*, and the *Nichinichi*, which in English would be *The Sun*, *The Day's Events*, and *Day by Day*. These journals are larger and sell at a higher price than the others, and have their regular correspondents in London, New York, and Petrograd. They devote careful attention to foreign affairs and exercise a far-reaching influence on public opinion, being equal to the penny morning papers of London. Taking them separately, the *Asahi* is generally regarded as the greatest paper in Japan, though the *Jiji* runs a close second. It has the best cable service, lives on its merits without resort to sensational devices, and employs an erudite and cultured staff of writers. The *Jiji* is noted for the accuracy of its commercial and financial news as well as for the ability and liberalism of its leading articles. This paper has more pages than any other Tokyo daily and it has a very large circulation, being regarded as a clean family paper. The *Nichinichi* is a solid, well-informed journal without any distinctive features. It devotes its first page to advertisements, the second to foreign telegrams, three to leading articles, court and political news, four to what it regards as the serious news of the day, speeches and so on, five to things notorious such as crimes, catastrophes, and sensations. Pages six and seven are given to serial stories, literary articles, and dramatic criticisms, while page eight contains many columns of financial and stock exchange intelligence. There are no sporting pages, though this paper devotes space to reporting baseball games and Japanese chess. The next most important of the metropolitan dailies is, perhaps, the *Kokumin*, or *Nation*, the distinguished editor

of which is Mr. Tokutomi, also a famous novelist and member of the House of Peers. The editor is the proprietor of the paper and in its columns he wields a strenuous pen, noted for its ardent nationalism appealing to the youth of the Empire. Apart from the editorial writings there is little of interest in the *Kokumin*, popular appeal consisting of exploitations of crime or baby contests. Prizes are offered to those bringing to light miscarriages of justice. Numerous editions of the paper are printed and localised in the provinces. The *Yomiuri* is distinctly a home paper to which there is no exact parallel in other countries. It is a literary newspaper that appeals to women, and enjoys considerable popularity among students. While giving the ordinary news of the day, home and foreign, the paper leaves on one the impression that news is only a disagreeable necessity; and as soon as this can be got rid of, the main attention is devoted to the Woman's Page, the Literary Page, the Page for Children, and the Literary Section. There are Household Hints and articles for young ladies, and a personal consultation column, with stories such as are found in foreign magazines. The *Yomiuri* is really a daily magazine with an epitome of the news. The *Hochi*, or *Post*, is a paper for the masses. Its editor and proprietor, Mr. Zenhachi Miki, is the W. R. Hearst of Japan. There are no evening papers in Tokyo, but the *Hochi* publishes an evening edition, the four pages of each edition being sold for a farthing, duplication being carefully avoided in the two editions. The morning edition is devoted chiefly to telegrams and the news of the day, while the evening edition deals with late cables and attempts to entertain the weary business man with tales ancient and modern. The *Hochi* is a party paper and now supports the Kenseikai. The *Yorozu Choho*, or *Ten Thousand Things*, is a bright and well-made-up paper dealing with all manner of subjects, making a feature of competitions, the latter mostly of a literary nature. The evening edition has short comments instead of leading articles, and gives a valuable and concise summary of the news. The *Yamato*, which is rather a sensational sheet, publishes two editions daily, and is mostly popular among the lower classes. This paper makes a feature of attacking foreign countries and publishing shady geisha stories, giving the names of real persons who have lost their hearts to the fair dancers. Two other small papers, the *Miyako* (*Capital*) and the *Maiyu* (*Every Evening*), also devote much space to the doings of the *demimonde*. Such papers are used for advertising pleasure resorts and theatres. The *Chugai* is a commercial and economic journal which enjoys

a large circulation, while the *Chuo* is an organ of the Seiyukai party. Other Tokyo dailies are the *Nippon* and the *Sekai* which have no very great influence. Osaka has some daily journals equal to anything in Tokyo, such as the Osaka *Asahi*, the Osaka *Mainichi*, the Osaka *Nichinichi*, which command a powerful influence and clientele. Other Osaka papers are the Osaka *Jiji*, the Osaka *Nippo*, and the Osaka *Shimpo*.

A further feature of Japanese journalism is the number of papers published by foreigners in English, some of which date their establishment before many of the leading vernacular dailies. The circulation of papers printed in English is necessarily limited and the prices correspondingly high. The oldest foreign journal is the *Japan Mail*, founded by the late Captain Brinkley and edited by him for more than 40 years; but since his death it has descended to comparative insignificance. The most important foreign daily now is the *Japan Chronicle*, published in Kobé, Mr. Robert Young being the editor and proprietor. Its leading articles are well written and its attitude one of frank criticism. The *Japan Gazette*, published in Yokohama, is now the only English journal in Japan's greatest port, while the *Japan Advertiser*, published in Tokyo, by an American, Mr. B. W. Fleisher, is the most modern foreign paper in Japan. The *Japan Times*, also published in Tokyo, is the only foreign paper under Japanese auspices, the editor being Mr. I. Takahashi and the management under the International News Agency. The *Kobé Herald* is a small paper and so is the *Nagasaki Press*, while another paper in English is published in Seoul by the Japanese, called the *Seoul Press*. It may be said that most of these foreign dailies are well edited and conducted, and that, considering the high cost of cable despatches, they peek their readers fairly well informed in relation to the outside world.

The publication of magazines, reviews, and periodicals devoted to special subjects has developed even to a greater degree than that of daily newspapers, and there is scarcely one department of scientific, industrial, commercial, political, or social life that has not an organ to represent it. The most prominent of the weeklies and monthlies are devoted to commerce, finance, and politics, followed by literature, art, medicine, army, navy, education, religion, and the world of woman. It is remarkable the number of women's magazines that find support, and most of them are high class, the product of educated brains, and admirably illustrated with photographs, lithographs, and colotypes done in artistic style. The most prominent financial organ is the *Kezai Zasshi*, or

"Economist," while the *Taiyo*, or "Sun," is one of the best of the monthly reviews, corresponding to the "Fortnightly" or the "Contemporary" in England. The *Chuo Choron*, or "Central Review," deals with general subjects and is a popular exponent of public opinion of a radical trend. The *Shin Nippon*, or "New Japan," is Marquis Okuma's review and deals in a trenchant manner with political questions and general affairs, while the *Nippon Oyobi Nipponjin* is a powerful political and literary fortnightly. The "Far East," is a weekly published under foreign auspices in English, as is the "New East," which is published monthly, reviewing Oriental and Occidental thought. The "Herald of Asia" is a weekly in English under Japanese control, and the "Japan Magazine," another monthly in English under Japanese auspices, treating of things Japanese. The most famous comic publication is "Tokyo Puck," which is on the whole rather a vulgar sheet. The police entrusted with the inspection of periodicals have an enormous task in dealing with the hundreds of publications that see the light from month to month. Those publishing dangerous thoughts have to be duly warned and if they persist they are promptly suppressed.

"THE JAPAN CHRONICLE"

The *Japan Chronicle*, a morning journal published at Kobé, was established in 1891. Mr. Robert Young, the founder of the paper, came out to Japan in 1888 to join the *Hyogo News*, a journal established in 1868, when the port of Kobé-Hyogo was opened to foreign trade. He severed his connection with this journal and started the *Japan Chronicle* in October, 1891. This was the month in which the great earthquake took place in the neighbourhood of Gifu, when some ten thousand lives were lost. The care and promptitude with which the particulars of this terrible calamity were reported did much to give the new journal a standing among its contemporaries. A few years later—in 1894—the war with China broke out, and the *Chronicle* obtained further reputation for the extent and accuracy of its war news. It was the *Chronicle* that gave the first intimation of the impending Japanese attack on Formosa—news that was ridiculed at the time, as it was thought the Japanese would confine their operations to the north, but news which was found in due course to be based on accurate information. In 1898 the *Hyogo News* came into the market, and was purchased by Mr. Young, when it was converted into an afternoon journal. A few months later a fire destroyed the office of the *Hyogo News*, and it was then decided to



"THE JAPAN CHRONICLE" BUILDING, KOBÉ

incorporate the two papers. Hitherto the new journal had been known as the *Kobé Chronicle*, but shortly after the incorporation the name was changed to the *Japan Chronicle*, to indicate that it covered a wider field than a mere local journal. Since then it has enjoyed continued prosperity.

When the *Chronicle* was started extraterritoriality still prevailed in Japan. The *Chronicle* urged that as Japan had shown such great progress in the Westernisation of her institutions it was only just that extraterritoriality should be surrendered, and that foreigners should be brought under Japanese law but with the necessary safeguards both as regarded the administration of the law and the protection of the interests already set up. In 1894 the revised Anglo-Japanese Treaty was signed, under which consular jurisdiction was to be abandoned after five years. Unfortunately the new treaty, while it protected

the property in the foreign settlements from heavier taxation than that already paid, contained no safeguards as regards the administration of the law or the improvement of the prisons, the latter a matter of much importance as the criminal law is very wide in Japan and bail extremely difficult to obtain. The *Chronicle* drew attention to these defects, with the result that a memorial was drawn up and presented to the British Foreign Office setting forth the position, which, though it had no diplomatic result, had influence in indicating to the Japanese authorities the necessity of tact and caution in the transition years, while impelling the British Government to keep a watchful eye on the effect of the changes. It was as the result of articles in the *Chronicle* pointing out that the imposition of a house-tax on settlement property was an infraction of the new treaties that the question was taken up

by the Governments concerned and ultimately submitted for decision to The Hague, which upheld the view originally advocated by the *Chronicle*, that the so-called rents paid on the properties concerned were really in the nature of a commuted tax.

Throughout its career the *Chronicle* has taken its stand as a representative of the foreign community as a whole rather than of any particular nationality, holding that in Japan the interests of foreigners were in the main identical; and when a few years ago a decision in a libel suit was given against the *Chronicle* in a case where the *Chronicle* had been defending foreigners from the aspersions of a foreign official, afterwards removed by his Government, the foreign community, irrespective of nationality, subscribed a fund sufficient to indemnify the paper against the damages and costs.

Established at a time when Japan was not the powerful nation recognised to-day, and beginning as an advocate of an act of justice to Japan in the matter of the surrender of extraterritoriality, the *Chronicle* has become more critical as time has shown Japan to be inclined to use her strength for the extension of her political power instead of developing her own resources and improving the condition of her people, but, if its criticisms are somewhat sharp, it endeavours to be fair and just, and has not hesitated to support Japan's legitimate claims in foreign affairs, while the domestic reforms it has advocated have been as much in the interests of the Japanese people as of foreign residents.

"THE JAPAN ADVERTISER"

The *Japan Advertiser* has been established about a quarter of a century, but its greatest progress has been made in the past ten years since it came under the proprietorship and management of Mr. B. W. Fleisher. It was originally published in Yokohama, but under its present management was moved to Tokyo, where it occupies a commodious building, centrally located, and well installed for newspaper production.

The *Advertiser* not unjustifiably claims to be the leading and most influential foreign paper published in Japan, and compares more than favourably with any foreign daily published in the Far East. Members of the paper's foreign staff are all trained journalists from abroad, and their high qualifications are reflected in the excellent news service which the *Advertiser* furnishes, and the general vigour of the journal. The organisation represents the most up-to-date journalism in the Far East, and the prestige of the paper is heightened by the fact that the members of the staff are also correspondents of newspapers or press associations abroad.

The mechanical side of the *Advertiser* is as noteworthy as its literary quality. There is no better printed newspaper in Japan, nor, in fact, outside of the great newspaper centres of the world.

The *Japan Advertiser* is about to publish a financial and economic monthly covering the whole of the Far East. Offices will be established in Tokyo, Yokohama, Peking, Shanghai, Manila and elsewhere, and there will be representatives and correspondents in other parts of the Orient. The head office of the *Advertiser* is at No. 18, Yamas-hita-cho, Tokyo.

"THE JAPAN GAZETTE"

The *Japan Gazette* is the only foreign newspaper with its headquarters at Yokohama.

Its history goes back to October, 1867, when the paper was started by the late Mr. J. R. Black, one of the pioneer foreign journalists of Japan. Mr. Black had previously been editor of the old *Herald*. The story of Mr. Black's difficulties in getting his paper started would form an interesting chapter of the history of journalism abroad. There was then only one newspaper press in town, and this was secured by the *Herald*. Consequently Mr. Black had to make shift to get the *Gazette* printed. A fellow Scotsman made a press for him. It took three men to work it, but it did work, and for some time the *Gazette* was printed on this machine until a real press could be obtained from China.

The *Japan Gazette* early established itself in popularity with the commercial community of Yokohama, it being the first evening paper to publish daily shipping and market returns. Its career has since been one of steady progress, and to-day it holds a firm place in the estimation of the entire foreign community of Yokohama. At various times the proprietors have produced historical and other publications of special interest. Associated with the *Gazette* are also the "Japan Directory," a highly useful trade publication, and "Commercial Japan," a monthly review of trade, industries, and economics. Mr. L. D. Adam is the Editor of the *Gazette*, Mr. A. W. Sherriff being in charge of the mechanical and business departments. The paper is published at No. 10 Water Street, Yokohama.



XLII. SHIPPING

(OSAKA AND KOBÉ SECTION*)

SHIPBUILDING

KAWASAKI DOCKYARD COMPANY,
LIMITED

THE student of the industrial and manufacturing development of modern Japan can not fail to be impressed with the energy and force, the courage and enterprise, business capacity and organisation, which have built up in the Empire such huge concerns as the Kawasaki Dockyard Company, Limited. This is no phenomenon of war times, but is the growth of many years, during which a steady policy of expansion, directed by the most capable business brains of Japan, has been followed with a clear idea in view to establish and maintain an industry giving to the Empire a measure of economic independence that can not be assessed even in millions. The Kawasaki Works is something of which any country might well be proud, as it is indeed something unrivalled even in these days of business organisation, except perhaps in the oldest shipbuilding centres of Europe. And as a matter of fact, the Kawasaki Company goes far beyond many of the greatest shipbuilding concerns of the Occident, because, though its first and principal activity is that of shipbuilding, it is also known throughout the Far East, and abroad, as a huge general engineering and constructing enterprise, engaging in a score of industries, allied to iron and steel work. As, however, it is proposed in this article to treat somewhat in detail of the different directions in which the Kawasaki Dockyard Company, Limited, operates through its various departments, it is not necessary at this stage to do more than indicate the wide extent of its business. The company has carried out some of the largest shipbuilding contracts in Japan, and the magnitude of its operations since the war began, are more than likely to be exceeded as time passes. For instance, one big deal in 1917 was the sale of 12 cargo ships, worth Yen 50,000,000 to Messrs. Furness, Withy and Company, and other British shipping firms, and the laying down of a programme for 20 liners of 9,000 tons each, as one part of the company's undertaking for 1918.

The original works at Kobé were established in May, 1870, and the Kawasaki

Dockyard Company, Limited, came into being in October, 1896. The subsequent history is one of rapid expansion in keeping with the industrial development of Japan, and the demand for the output of such a modern works. The capital of the company has been enlarged on several occasions, to enable the plant and works to be extended, and to-day it stands at the substantial sum of Yen 20,000,000, of which Yen 17,500,000 has been paid up. An idea of the prosperity of the company may be gathered from the fact that it has accumulated reserves of Yen 7,484,000, and that for the last term the dividends were 10 per cent, with a special dividend of 20 per cent per annum, while the outstanding debentures bear interest at 6 per cent. The business undertaken by the Kawasaki Dockyard Company, Limited, may be broadly outlined as follows:

1. Construction of, and repairs to, all kinds of warships, passenger and cargo steamers, sailing ships, dredgers, trawlers, floating docks, etc.
2. Construction of, and repairs to, all kinds of marine and land machinery, such as locomotives, boilers, dynamos, motors and all descriptions of electrical apparatus, machine tools, etc.
3. Casting and forging of iron, bronze, and brass; bridge building, girders, etc., and the manufacture of firearms and armament generally.
4. Salvage, towing and marine transportation.

The main offices and works are at Higashi Kawasaki-cho, Kobé. The branches will be dealt with later. The total area of the works is 567,337 square yards and the building area is 164,793 square yards. At the main works there are at present under construction 12 steamers of 9,000 tons each, and five warships. From this yard have been turned out the battle cruiser *Haruna* (27,600 tons), the second class cruiser *Hirado* (5,200 tons), and the despatch boat *Yodo* (1,250 tons). Other warships, comprising gun boats, submarines, destroyers, and torpedo boats, were built and engined for the Imperial Japanese Navy. Many gun boats, destroyers, and torpedo boats have also been constructed for the Chinese and Siamese Governments, to say nothing of a regular output of merchant vessels of all

kinds. From the same works a large number of railway locomotives, electric trams, railway carriages, brake vans, tenders, goods vans, etc., bridges and bridge girders, have been supplied to the Imperial Japanese Railways, the Kiang-se Railway, China, and to various tramway companies.

The main works are divided into various departments, as, for instance, the Shipbuilding Department, which comprises joiners' shops, platers' machine shop, bending slab shop, moulding loft, blacksmithy, fitters' and mechanics' shop, plumbers' shop, rivet and bolt making shop, boat shop, galvanising shop, saw mill, riggers' and sailmakers' and painters' shop; Designing and Drafting Department; Engine Department (model shop, foundry, machine shop, erecting shop, tool shop, brass shop and testing house); Boiler Department (designing and drafting rooms, construction shop, coppersmiths' shop and forging shop); Electrical Department (designing and drafting rooms, constructing and repairing shops); Docking and Repairing Department, general office, accountant's office, purchasing office, and store department.

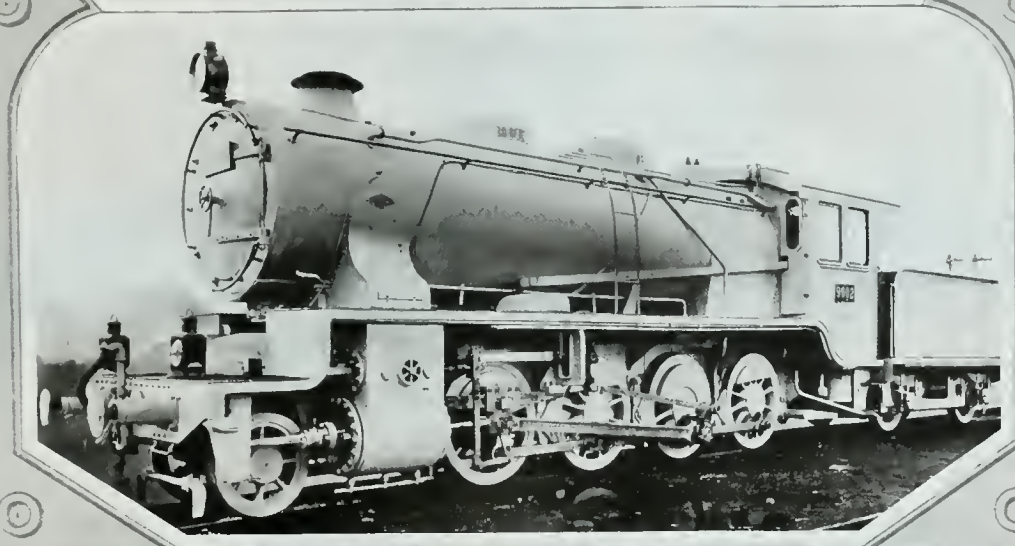
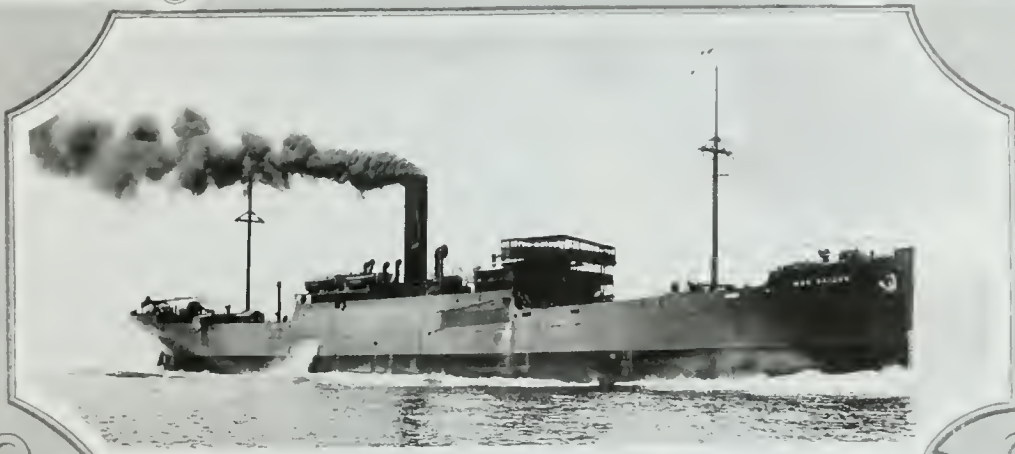
Some idea of the modern nature of the plant and equipment of the works may be gained from the following brief description of the same. Electricity is the main motive power employed, and steam, compressed air, and hydraulic power are also used. The total number of machines installed is above 2,500 including the most powerful and up-to-date machines. There are two 125-ton overhead cranes, and scores of overhead cranes of over 2-ton lifting power. Three floating cranes have a lifting power respectively of 200 tons, 50 tons, and 15 tons, and there are numerous locomotive cranes, and private railway tracks for facilitating the transportation of materials from the Government lines. The main dockyard has six shipbuilding berths with stocks to lay keels of up to 35,000-ton vessels, besides several temporary building stocks. A huge gantry of 1,151 clear inside width, 164 feet 6 inches in height, and 1,016 feet working length, is erected over the Number 4 building stocks. One graving dock in Kobé and one floating dock of over 35,000 tons lifting capacity are planned for early construction.

At the Hiogo Works near Kobé, the following is undertaken: Casting of steel and iron

*See page 168.



KAWASAKI DOCKYARD COMPANY: H. M. S. "HARUNA" (27,600 TONS)—VIEW OF THE MAIN WORKS—T. S. S. "YASAKA MARU"
(NIPPON YUSEN KAISHA LINE, 18,000 TONS). THE SHIPS WERE BUILT AT THE KAWASAKI DOCKYARD



KAWASAKI DOCKYARD COMPANY: T. S. S. "WAR SAILOR" (FURNESS, WITHY & CO. LINE), 10,300 TONS—A TYPE OF LOCOMOTIVE BUILT FOR THE IMPERIAL RAILWAYS—RAILWAY BRIDGE ON THE OIGAWA-TOKAIDO LINE

water and gas pipes; turning out of round, flat, and square bars, angles, channels, etc.; construction and repairs of railway locomotives, carriages, and other rolling stock, electric tram cars, wheels, axles, and all descriptions of railway accessories and mining machinery; construction of steel bridges and gas tanks; manufacture of bridge girders, and construction work of other natures for all kinds of public works and similar undertakings. Another branch exists at Dairen, North China, where there is a dock with a capacity for vessels of 5,500 tons, and yards and machine shops for the construction and repair of all kinds of vessels and land and marine machinery. The number of foremen, assistant foremen, contract mechanics, and operatives employed daily is over 21,000.

The President and Managing Director of the Kawasaki Dockyard Company, Limited, is Mr. K. Matsukata, son of the famous Marquis Matsukata. The Vice-President and Managing Director is Mr. Y. Kawasaki, and the other principal officers are: Directors, Messrs. T. Nomoto, M. Hirose, T. Saka, Y. Tanaka, and Auditor, Mr. T. Tanaka.

An interesting comment on the Kawasaki Dockyard was contained in the "Journal of Commerce" for August 23, 1917, which said:

"Cramp's in Philadelphia recently put overboard a ten-thousand-ton tanker in slightly less than six months, and in a speech made at the christening an official of the company referred to it as a record in high-speed construction. Cramp's record, however, did not include the time spent in assembling the materials, and the clock was stopped when the ship splashed into the Delaware. An additional five weeks was consumed in putting on the finishing touches. According to the steel officials the two months and twenty-nine days occupied in building a ten-thousand-ton freighter at the Kobé works include everything connected with the ship's construction except the signing of the contracts. A freighter of 7,800 tons deadweight capacity was recently launched on the Clyde four months and eleven days from the time her keel was laid, and this, so far as the records show, represents a record in British shipbuilding. The ten-thousand-ton freighter built by the Kobé concern (Kawasaki) in two months and twenty-nine days is not a remarkable accomplishment for this particular yard, according to the steel men. They declare that a ship named the *Har Council*, 9,000 tons deadweight capacity, was laid down, launched, and completed in exactly three months. This established the record that was broken in the construction of the ten-thousand-ton freighter. The latter vessel had not been

named when the steel men left Japan. Both these record-breaking vessels are for British interests and there are nine others in various stages of construction in the same yard."

OSAKA IRON WORKS, LIMITED

THE industry which is now controlled by the Osaka Iron Works, Ltd., originated in 1881 when Mr. E. H. Hunter, a British subject, started shipbuilding at Osaka. The magnificent services which Mr. Hunter has rendered to Japan, and especially to the shipbuilding and steel industries, have been cordially recognised, and it is not so long ago that his great work in organising one of the largest shipbuilding concerns in the world was duly honoured by the erection of his statue in the new factory grounds at Sakurajima. Mr. Hunter and his son carried on the Osaka Tekkojo, or Osaka Iron Works, as their private business, until March 18, 1914, when the big concern was transformed into a limited liability company with a capital of Yen 12,000,000. Under the control of the Hunter family the Osaka Iron Works attained a position of great importance, its plant and productive capacity being steadily increased as the years went by. In 1911 the Inno-Shima Dock Co., Ltd., was purchased, and the Hunter plant became one of the three largest shipbuilding concerns in Japan. After the transfer of the private interest to the joint-stock company, the business of the Osaka Iron Works increased at a greater pace than ever. The outbreak of the war set up a big demand for ships, and when the company was working to its fullest capacity with orders it was soon found that the plant at Ajikawa was too small to meet the demand. Those works were sold, and a magnificent site was purchased at Sakurajima, where one of the finest shipbuilding plants in the world was installed. By 1916 the capacity of the yard was 200,000 tons of shipping per annum. What the future output will be it is hard to say. The company is working at the highest pressure to fulfil orders, and its production is steadily being increased. In the Osaka Iron Works yards all classes of vessels are built, including warships, freighters, liners, dredgers, fishing trawlers, shallow draft vessels, and steam and motor craft of all dimensions. The works also turn out locomotives, electric plant, engines and boilers for land and marine use, and steel joists, piers, and general structural steel work. There is also a salvage plant available at quick notice for the relief of ships in trouble.

The company are the purchasers of the patents for Japan of the Isherwood system of ship construction, and they hold the rights

for the manufacture of turbines under European patents. The advantages of the Isherwood system of construction are stoutness, capacity for carrying greater loads than other ships, cheapness of building, and the small maintenance expense. Up to date twenty ships have been built under this system and have been delivered, the total tonnage being 65,000. Orders are in hand for thirty-three more ships of a total of 190,000 tons, some of them being nearly completed. At the big yards there are berths for building seven vessels simultaneously. The smallest is 373 feet long by 50 feet wide, for ships of 4,000 tons, and the largest is 560 feet long by 75 feet wide, for vessels up to 10,000 tons. There are six docks, three at Sakurajima and three at the Inno-shima works. The smallest will accommodate ships of 500 tons and the largest will take vessels up to 8,000 tons. Sites occupied by the company total an area of 124,695 *tsubo*, and the buildings, offices, machine shops, etc., cover 16,478 *tsubo*. In 1917 the Osaka Iron Works, Ltd., turned out thirty-one ships of a total of 184,700 tons. They are now under special contract with the Nippon Kisen Kaisha and the O. S. K. to build respectively 80,000 tons and 190,000 tons of ships annually up to the year 1921. Over 11,500 hands are employed at the company's works.

The head office of the Osaka Iron Works, Ltd., is at No. 30, Sakurajimacho, Nishi-ku, Osaka. Mr. J. Yamaoka, Vice-President of the Osaka Shosen Kaisha, is the President of the company. The Managing Directors are Messrs. T. Yamaguchi and R. Kimura. Mr. R. Hunter, son of the founder of the works, is also a Director, and other members of the Board are Messrs. M. Muraki and S. Nakayama. The Auditors are Messrs. U. Koga and Y. Takagi.

FUJI-NAGATA SHIPBUILDING YARD

UNDER its Japanese name of the Fuji-nagata Zosenjo, this concern is known as one of the oldest shipbuilders in Japan. The yard was started in 1689, and little more is known of its ancient history. Of course in those far distant times the Fuji-nagata dockyard turned out junks, built of wood, and most probably launched warships of the period. It is known that it was founded by Sanjuro Hyogoya, who won Imperial favour. The yard was not modernised, of course, until the introduction of European ideas of shipbuilding in the Meiji era, but since then it has developed rapidly, and is now a busy hive of industry, turning out modern steel vessels of great tonnage. The Fuji-nagata Zosenjo is one of the few yards enjoying an Imperial subsidy, and though

this is small, it indicates the high esteem in which this ancient enterprise is held. The old dockyard is at No. 187, Shin-sumiya machi, Nishiku, Osaka. Here the works and the yard cover 9,513 *tsubo*. Modern buildings of steel and wood are erected and the yard and works are complete with all up-to-date plant, machinery, and launching facilities. A branch yard and works, covering 16,770 *tsubo*, are located at Kitakagaya-shinden, Shikitsumura, Nishinari-gori, Osaka-fu. In September, 1917, four ships of a total tonnage of 12,800 were under construction in the Fuji-nagata yards, and several were launched during the year. The yards turn out six ships per annum, and repairs are affected to about one hundred craft of different kinds, the total volume of business for the machine shops and shipbuilding yards being valued at Yen 22,000,000 per annum. A staff and workmen to the number of about 1,200 are employed all the year round, and the wages bill runs over Yen 600,000 per annum. In addition to the building and repairing of ships, the Fuji-nagata Shipbuilding Yard constructs engines and machinery of different kinds, and also makes iron and steel bridges, and similar structures, under contract. The principal imports of the concern are steel plates, steel sections, bars, tubes, pig iron, machines, and machine tools, etc. These are mainly obtained from England and the United States, though a fair supply of raw material is derived locally and from China.

Mr. Sanjuro Nagata is the proprietor of the Fuji-nagata Zosenjo, which has a capital of Yen 3,000,000.

ONO IRON WORKS AND SHIPBUILDING YARD, LIMITED

THERE are very few shipbuilding yards in Japan now left in private hands, but such is the case with the Ono Tekko Zosenjo, or Ono Iron Works and Shipbuilding Yard, Ltd., which is the private concern of Mr. Ono, one of the best known and oldest iron-masters and builders in Osaka. The plant is an extensive one, and comprises three dry docks, machine shops, launching ways, etc. All classes of iron and wooden ships are constructed, and the plant also turns out steam engines, boilers, all descriptions of castings, and general steel and iron work, besides undertaking the repair of ships. The area occupied by the Ono Works covers 15,000 *tsubo*. The buildings are of wood and iron, and installed in the different departments are machinery and appliances of the latest type, to enable the concern to carry out practically any kind of work. Steam and electricity are employed for power purposes. There are 1,500 employees under

the direction of highly qualified technical experts, over whom is Mr. T. Ono, the General Manager. Steel plates, material for moulds, pig iron, Oregon pine, teak and other requirements of the shipbuilding industry are imported from Great Britain, the United States, India and elsewhere, and are utilised in the works for the construction and repair of vessels, etc. The annual output of the plant is about 15,000 tons of steel, iron and wooden ships, engines, boilers, castings and so on. Work is principally carried on for Japanese customers, but in some cases the Ono Works have turned out ships for Britain, France, Italy and other countries.

The head office and yards of the Ono Iron Works and Shipbuilding Yard are at Nakaguchi-machi, Nishiku, Osaka.

MITSUBISHI ZOSEN KAISHA, LIMITED (MITSUBISHI SHIPBUILDING CO., LTD.)

THE building of ships has been, and is, of such vital importance to the world of commerce, particularly during the last few years, that a brief description of the Mitsubishi Dockyard and Engine Works of Japan, this country's oldest and largest shipbuilding establishment, will be of peculiar interest. Founded by the Shogun Government in 1856, a few Dutch engineers were employed, work being carried on in a limited way for the repairing of a few small steamers owned by the shogun. After the Restoration the works passed into the hands of the Public Works Department and were largely extended. In 1879 a large dry dock, 426 feet in length, was constructed at Tategami and

took over the establishment. It was in 1884, on the abolition of the Department of Public Works, that the establishment and subsidiary works connected with it were leased by the Government to the Mitsubishi Company, the entire ownership being acquired three years later. With progressive and rapid developments, a notable step was taken in the opening of a shipyard at Tategami. In 1889 the first iron steamer, of about 206 tons gross, was built and named the *Yugawo Maru*, followed shortly after by three steel steamers of 700 tons each and in 1895 by one of 1,592 tons, establishing a new record in Japan's shipbuilding industry.

Following the China-Japan War developments came rapidly. In 1896 a great stimulus was given to the growth of shipping and shipbuilding by the enactment of the Navigation Encouragement Act and the Shipbuilding Encouragement Act. It was at this time that the Nippon Yusen Kaisha first organised its European line and decided to build six steamers of 6,000 tons each. The construction of one of these steamers was undertaken by the Mitsubishi Company and completed in 1898. This was the first steamer of such size ever built in Japan, and from that time to the present day the history of the company has shown remarkable results and the building of vessels of ever-increasing size, from coast steamers to turbine-driven ocean liners of 13,500 tons, torpedo-boat destroyers such as the *Kirishima*, 27,500 tons, completed in April, 1915, and the *Hyuga*, 30,600. The following table will give some idea of the work during fifteen years from 1900.

| YEAR | VESSELS | ENGINES | GROSS TONS | I. H. P. |
|------|---------|---------|------------|----------|
| 1900 | 13 | 9 | 11,617 | 13,519 |
| 1901 | 6 | 6 | 7,194 | 6,236 |
| 1902 | 9 | 6 | 15,807 | 13,336 |
| 1903 | 8 | 8 | 13,078 | 11,463 |
| 1904 | 7 | 5 | 11,859 | 12,082 |
| 1905 | 9 | 7 | 12,939 | 12,731 |
| 1906 | 13 | 11 | 10,031 | 22,735 |
| 1907 | 4 | 4 | 7,859 | 23,519 |
| 1908 | 4 | 4 | 23,332 | 36,417 |
| 1909 | 6 | 6 | 45,459 | 64,751 |
| 1910 | 4 | 4 | 21,635 | 16,879 |
| 1911 | 14 | 10 | 21,382 | 71,205 |
| 1912 | 8 | 8 | 12,233 | 38,365 |
| 1913 | 6 | 5 | 20,895 | 21,980 |
| 1914 | 3 | 3 | 22,964 | 23,835 |

called No. 1 Dock, but since that date it has been considerably enlarged. In 1883 a wooden steamer named the *Kosuge Maru*, of 1,500 tons gross, was built, the forerunner of the shipbuilding industry in the Island Empire, though the real expansion dates from the time when the Mitsubishi Company

The Mitsubishi Dockyard and Engine Works, with dockyards and engineering works at Nagasaki, Kobé, and Hikoshima, like those at Barrow or Clydebank in Great Britain, are laid out with the object of doing the maximum amount of work upon any ship, purchasing from outside sources only



ONO IRON WORKS AND SHIPBUILDING YARD, LTD.: BIRD'S-EYE VIEW OF THE SHIPBUILDING BERTHS—LAUNCHING OF THE S. S. "ASAHI MARU" (3,500 TONS), NOVEMBER 14, 1917—S. S. "KASUGA MARU" (2,035 TONS), BUILT BY THE FIRM—S. S. "SAPPORO MARU NO. 6" (3,500 TONS), LAUNCHED APRIL, 1917



MITSUBISHI SHIPBUILDING CO., LTD. (MITSUBISHI ZOSSEN KAISHA, LTD.): SHIPBUILDING YARD AT NAGASAKI—ENGINE WORKS AND MACHINE SHOPS IN CONNECTION WITH THE TATEGAMI SHIPBUILDING YARD AT NAGASAKI—SHIPBUILDING YARD AT KOBÉ

materials and proprietary or patented articles. Independence of other establishments in this respect frees the company from danger of delay in shipbuilding, always incidental to dependence upon others for the prompt delivery of accessories as required. It has been the constant effort of the company to keep the works up-to-date in all respects, as well as in the thorough efficiency of its staff in technical knowledge and business methods. To ensure efficiency in these respects members of the staff, and workmen, have been sent to European engineering centres to study modern methods of construction and organisation. The shipyard at Tategami can now undertake the building of the largest vessels and has six building berths ranging from 480 feet to 767 feet long, with an annual capacity of over 40,000 tons. There are three graving docks, all constructed of granite, and one slip. No. 3 Dock was opened in 1905 and the enormous quantity of 71,250 tons of water can be pumped out in four hours at high tide; at low water the work can be done in three hours and twenty-five minutes. To accommodate the ever increasing size of ships an extension of this dock is now under con-

tem-
plation. Since the company obtained the sole license for the East for Parson marine steam turbines in 1904, the turbine shops have been very much extended in consequence of the increasing demand upon them. The works have their own school on the premises, a well-equipped hospital, club houses, etc.

The works at Wada Point, Kobé, were inaugurated in 1905. A floating dock of 7,000 tons' lifting capacity was built by the Nagasaki branch for use at Kobé, followed later by another floating dock of 12,000 tons' lifting capacity. In addition to the building, repairing, and equipment of vessels, the works at Kobé are equipped for making the following: water turbines, land and marine boilers, dredgers, steel girders, steel buildings and various alloys. Located on the western shore of Kobé harbour, the works occupy an area of eighty-two acres, and there is ample room for future extension. The various workshops are splendidly equipped, the largest, the machine shop, covering 59,436 square feet. The Salvage Department at Kobé operates the steamer *Arima Maru*, 312 tons, with powerful pumps of 3,500 tons' capacity.

Owing to the rapid growth of shipping in the Straits of Shimonoseki, it became a matter of necessity to meet the requirements for docking facilities. For this purpose the dockyard at Hikoshima was built and completed in 1914. The dock is of concrete and vessels up to 4,000 tons gross can be docked, length over all being 382 feet. Connected with the dock there is a steel building containing pattern shop, foundries, machine shops, etc. At present the yard is chiefly occupied in the docking and repairs of ships, machinery and tools, also electrical machinery, but has a promising future in building ships.

The Mitsubishi Dockyard and Engine Works has been one of the big factors in the development of the shipping industry in Japan, and much of the maritime prominence this country enjoys is due to those responsible for the activities of this progressive company. Its headquarters are at Tokyo, under the Presidency of Baron Koyata Iwasaki, with Mr. K. Uyematsu as Managing Director. Further details with reference to the numerous other interests of this great house will be found in the body of this volume.



BIRD'S-EYE VIEW OF THE BUILDING YARDS OF THE OSAKA SHIPYARD COMPANY, LIMITED

OSAKA SHIPYARD COMPANY, LIMITED

This enterprise was established on August 1, 1917, by Mr. U. Iwaki, a prominent merchant of Osaka, whose name is well known in connection with the Iwaki Shokai, a business which is doing a large general trade. The company has a capital of Yen 5,000,000, and is providing a new shipbuilding yard of about 62,000 *tsubo*, complete with all modern machinery and plant for turning out about 100,000 tons of new ships per annum, or an estimated value of Yen 60,000,000. The Osaka Shipbuilding and Iron Works, Ltd., gives employment to about 1,600 hands, and besides the construction of ships, it is engaged in general iron and steel structural work, machinery making, coal operations, etc. The office and yard are located at No. 72 Izumiocho, Nishi-ku, Osaka. Mr. U. Iwaki is President of the company.

THE IWAKI SHOKAI

This business, which embraces a number of different industries, was founded by Mr. Iwaki on October 19, 1899, and has proved highly successful. The Iwaki Shokai is engaged in the shipbuilding and iron trade, as well as mining and coaling operations,

quite apart from the ordinary business of importing and exporting. The lines of business at present are as follows: (1) Ship-owners; (2) Ship brokers; (3) Shipbuilding (in Osaka); (4) Shipping agents; (5) Copper mining; (6) Coal merchants; (7) Exporters and importers of metals, shipbuilding materials, cotton yarn, cotton piece goods, Chinese peanuts, peanut oil, bean cake, pongee silk, etc.; (8) Iron works (in Osaka).

The head and branch offices are located as follows: Head office, Kobé; branches in Japan, Osaka (Nishinagahori), Karatsu, Wakamatsu; branches in China, Chefoo, Dairen, Tsintau, Tsinanfu.

The firm pays in salaries and wages the sum of over Yen 846,000 per annum.

AIZAWA SHIPYARD

When Mr. Iwakichi Aizawa opened his shipyard in July, 1911, he could not have foreseen, even in his most optimistic moments, the early and phenomenal, not to say surprising, success that has attended the venture, since the present output is many times that of the initial years, and the present capital of Yen 3,500,000 represents an increase of just seven hundred per cent.

The yard located at Nishi-ku on the outskirts of Osaka covers a total area of 11,500 *tsubo* and undertakes the construction and repairs of all kinds of modern steamers, the annual output at present being 12,500 tons, though this is not by any means the limit, and will doubtless be easily surpassed in the coming years, especially in view of demands. Another important section of the works is devoted to machinery construction, principally engines, the annual production being equal to 16,500 H. P. Bridges, steel and iron frames for other constructional purposes are also built; in fact, from the success so far achieved it will be seen that the policy adopted by this firm is distinctively progressive. They are prepared to undertake any work that comes under the heading of machinery. Only the raw products are imported, and those principally from England and the United States.

About 1,800 men are employed, 30 of that number being fully qualified engineers and shipbuilding experts. The plant comprises all the modern machinery usual to such undertakings; indeed, one would have no difficulty in imagining the installation the property of an enterprising Clyde firm.

The offices are located at the yard and are



BIRD'S-EYE VIEW OF THE OSAKA WORKS OF THE AIZAWA SHIPYARD



MEMBERS OF THE FLEET OF THE OSAKA SHOSEN KAISHA: SOCIAL HALL ON THE "AMERICA MARU"—S. S. "KASATO MARU"—
S. S. "KURENAI MARU"—S. S. "MANILA MARU"—S. S. "HARBIN MARU"—S. S. "SEATTLE MARU"



NOW PROMINENT IN SHIPPING

(Upper Row) Mr. TATSUJIRO HASHIMOTO, President, Hashimoto Trading Co.; Mr. TADAO OKAZAKI, Managing Director, Okazaki Bank and S. S. Co.; Mr. T. YAMAMOTO, President, Kabushiki Kaisha Shosho Yoko; Mr. KIZO HASHIMOTO, Head of Shipping Department, Hashimoto Trading Co., Ltd.; Mr. K. UYENISHI, President, Uyenishi Showkai. (Middle Row) Mr. H. KURASAWA, Managing Director, Uchida Trading Co.; Mr. S. NANGO, President, Kobé Pier Co., Ltd.; Mr. K. YAMASHITA, President, Yamashita Kisen Kabushiki Kaisha; Mr. G. KATSUDA, President, Katsuda Shokai; Mr. TORAJI INOUE, President, Kabushiki Kaisha Tomijima Gumi. (Lower Row) Mr. J. OKA, President, Oriental Whaling Co., Ltd.; Mr. K. MATSUKI, Vice-President, Yamashita Kisen Kabushiki Kaisha; Mr. NOBUNARI UCHIDA, President, Uchida Kisen Kabushiki Kaisha; Mr. KENTARO KAWACHI, President, Goko Shokai; Mr. TOSATARO YAMAJI, Managing Director, the Meiji Bussan Co., Ltd., and the Meidai Kisen Kaisha, Ltd.

housed in a two-story European style building. The works occupy eleven galvanised iron shops.

Mr. I. Aizawa, the proprietor, is himself perhaps the best explanation of the success achieved, inasmuch as he served fifteen years in the Naval Shipyard at Yokosuka, and a further three years at the Kuré Naval Shipyard, from which place he resigned in 1906 to take charge of the shipbuilding department for the now famous Osaka Iron Works, where he remained until establishing his present business. Mr. Daisuke Aizawa, the eldest son of the proprietor, who assists in the management, also contributes considerable experience. This gentleman also served in

the Naval Shipyards and, further, served sixteen years with the Harriman Electric Power Plant of Chicago and six years with the Union Iron Works. Mr. Yahei Kanaya assists in the management and has had a wide experience in all kinds of machinery and shipbuilding. It is, therefore, not surprising that this firm can compete on equal terms with European and American concerns.

SHIPPING INDUSTRY

THE OSAKA SHOSEN KAISHA

THE history of the shipping world presents no story of greater or more rapid progress

than that of the Osaka Shosen Kabushiki Kaisha, more popularly known as the Osaka Shosen Kaisha, or to give the English equivalent, the Osaka Mercantile Steamship Company, Limited. When organised in 1884, the company had a capital of Yen 1,200,000, and a fleet of an aggregate tonnage of only 17,000, though the ships numbered 90, most of them being small coasting vessels. The services then in force (and they were mainly confined to the Inland Sea) totalled a mileage of only 8,500. To-day the Osaka Shosen Kaisha has a fleet of 154 steamers of a total tonnage of over 416,000, and its services cover the wide world. The capital to-day is Yen 50,000,000. In all respects

the company is the greatest shipping enterprise of Japan, as also it is one of the most prosperous. As a pioneer of new trade routes, the "O. S. K." has always led its competitors.

To go back through the history of the Osaka Shosen Kaisha is to trace the entire development of the shipping industry of Japan. Osaka was always the commercial centre of Japan, and with the opening of the country to foreign trade and influence, a water transport business sprang up early in the Meiji era (1868-1912), the centre of this activity being Osaka, which commanded the great water-way through the Inland Sea. The shipping trade was lively, and attracted a great deal of enterprise, the business reaching the height of its prosperity at the time of the Satsuma Rebellion in 1877. Subsequently the trade was overdone. There was more shipping than the trade conditions warranted, and the competing companies waged a frenzied freight war, each striving to drive out the other. A decline in freights necessarily followed, while the reckless running of the ships at sea brought about so many accidents and other evils, that public confidence in the shipping business was entirely lost.

The situation became so serious that the Government took the matter in hand, convinced that the only remedy was to effect a combination of all the competing ship-owners and incorporate them in one concern. To this end the formation of a joint-stock steamship company was undertaken, and after three years of strenuous effort the late Mr. Hirose and other men of note succeeded in bringing together a large number of owners, and the Osaka Shosen Kabushiki Kaisha was established on May 1, 1884. But the great difficulties of the situation had still to be faced. Many owners did not join the combination, but continued the freight war. The steamers taken over by the combine were for the most part badly worn and scarcely seaworthy, and yet they represented almost the whole of the paid-up capital of the Osaka Shosen Kaisha. To put the fleet in a proper condition, and to acquire new steamers, was the vital necessity of the times, but the finances of the company hardly allowed the completion of the work. The Government was therefore appealed to for assistance, but the appeal was not responded to until 1887, when an annual subsidy, over a period of eight years, of Yen 50,000 per annum was granted. The improvement of the company's fleet began in 1888, the old vessels being gradually replaced by new ones, while the services were developed and increased, the progressive policy resulting in

more revenue and a consequent strengthening of the company's financial position. In 1893 the capital of the O. S. K. was increased to Yen 1,800,000, which was increased by Yen 700,000 in the following year, preparatory to a further expansion of business, but the Sino-Japanese War interposed. The company placed thirty of its vessels at the disposal of the Japanese Government for war purposes, as on all such occasions of national need it has placed its resources at the call of the Empire. The conclusion of the war and the annexation of Formosa gave the Osaka Shosen Kaisha a new sphere of operations. A service was opened with Formosa, and at the same time a coasting service round that island was inaugurated. The capital of the company was doubled in 1895 and was further increased to Yen 10,000,000 in 1897, to meet the requirements of the expansion which was taking place. Oversea services had been opened between Shanghai and Hankow in 1898, and between Formosa and South China ports in 1899. Meanwhile, the company had been building up its fleet and now possessed twenty-three newly built steamers with a total tonnage of over 29,000. With the exception of the trade depression which followed the Sino-Japanese War boom, the Osaka Shosen Kaisha has experienced an almost uninterrupted run of prosperity since its first difficulties were overcome. Year by year the fleet has been improved and strengthened, and the services have been extended. Year by year the company's financial position has improved, and, despite powerful competition, the Osaka Shosen Kaisha stands to-day as the most powerful of Japanese shipping concerns. It has bought up and absorbed several companies, and while developing its overseas services to the fullest extent has not neglected the coastal trade of Japan. On several occasions the capital of the big concern has been increased to permit of extensions in various directions, such as the building of new vessels and the opening of new trade lines. The most pronounced development has taken place since the Russo-Japanese War. By the way, it is interesting to note, as indicating the great strength of the company at that time, that it offered seventy-three of its ships to the Japanese Government for transport and auxiliary naval purposes in that war. With the conclusion of peace the Osaka Shosen Kaisha resumed its normal services, and although in the reaction that followed, there was a considerable depression in the shipping business, consequent upon a lowering of freights and an over-supply of ships, the company maintained its progres-

sive policy and launched out on several new routes, besides calling up new capital to Yen 16,500,000 in 1906.

The outbreak of the great European War saw no diminution of the prosperity of the Osaka Shosen Kaisha. Its ships were placed at the disposal of the Government for the operations against Tsingtau, and immediately that German possession fell, the company inaugurated a service with the new port. In the meantime two steamers were despatched to Europe as trial ships of the projected European line. The capital of the company was further increased to Yen 24,750,000 in 1914. In quite another direction a new regular line was started. Upon the withdrawal of the ships from the San Francisco-Hongkong line by the Pacific Mail Steamship Company, in the Summer of 1915, the Osaka Shosen Kaisha inaugurated a new monthly service between Japan and San Francisco. The following year three important overseas services were started. The South Seas service was opened early in the year between Keelung and Batavia. The service with Australia was next established with Adelaide as the terminal port. This monthly service is now maintained with three vessels of 4,500 tons type. In addition to these two new and important lines, a further inauguration of a deep-sea service took place at the end of the year, when the O. S. K. despatched the first steamer on the long run to Buenos Aires, *via* Hongkong, Singapore, Durban, Capetown, and Rio de Janeiro. In view of the great prospects for trade between Japan and South America, this new line promises well. The service is a quarterly one, maintained by steamers of 6,000 tons, and offering the best facilities for traders, as well as providing strong inducements for the wealthy people of South America to visit Japan.

Surveying the history of the Osaka Shosen Kaisha it can not be denied that the company has been remarkably successful, and by its activities has placed the merchant marine of Japan right in the forefront. The O. S. K. fleet is already one of the largest in the world, and is continually being improved and strengthened, giving promise, with the well known progressive policy of the company, that before long the Osaka Shosen Kaisha will have very few rivals. And the success achieved is readily admitted to be well deserved by the company that first really put Japanese shipping on a sound and businesslike basis. A few figures to demonstrate the stability of this great concern will not be out of place. The subscribed capital of the O. S. K. is Yen 50,000,000, and the amount paid up is Yen

37,625,000. Debentures have been issued for Yen 5,500,000 and the reserves amount to Yen 15,800,000. The gross receipts of the company for the half-year ended June 30, 1917, were Yen 30,793,696, and the profit for the term was Yen 13,922,306, plus the sum of Yen 1,203,645 brought forward from

dividend of 40 per cent per annum was paid, absorbing Yen 4,681,050; Yen 2,000,000 was set aside for business extension and dividend equalisation funds; Yen 400,000 was paid as an extra bonus to employees; Yen 2,500,000 was further written off for extra depreciation on the fleet, and a balance

Nomoto, Ryutaro Hanta, and Genzaburo Tarao.

THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY

THE history of the Peninsular and Oriental Steam Navigation Company, if written at



KOBÉ PREMISES OF PENINSULAR AND ORIENTAL STEAM NAVIGATION CO.
THE LUXURIOUS FURNISHINGS OF AN "M" CLASS P. & O. LINER

P. & O. LINER OF THE "M" CLASS
THE COMPANIONWAY OF AN "M" CLASS P. & O. LINER

the last term. After setting aside Yen 2,371,000 to the Insurance and Repair Funds, and writing off Yen 859,000 for depreciation, placing Yen 535,000 to the Reserve Funds and paying directors and auditors' fees amounting to Yen 268,000, there was available for distribution Yen 11,092,951. Of this handsome surplus a

of Yen 1,511,901 was carried forward. The officers of the Osaka Shosen Kaisha are as follows: President and Director, Mr. Keijiro Hori; Vice-President and Director, Mr. Juntaro Yamaoka; Managing Director, Mr. Rikitaro Kafuku; Directors, Messrs. Zenyemon Toyoda, Seiki Teranishi, Ryuzo Tanaka, and Hikotaro Abe; Auditors, Messrs. Gyo

due length, would form a large and important chapter of the whole history of the development of the entire Far East to foreign trade and intercourse, for the two subjects would be found inseparable. Indeed, it would be hard to say where the share of the great British shipping company, in the opening up of the Orient, either to trade or

the passenger traffic, ended, so closely have its services been associated with the development of all that vast extent of world surface east of Suez. It is impossible to say where the work began, because the history of the P. & O., like the history of many another great enterprise, is one of phenomenal growth from an easily envisaged humble concern, but just what the expansion and enterprise of the company has meant to British trade and commerce, and the opening up of lands that once were scarcely known to Europe, it is difficult to define. The operations of one of the greatest of British shipping enterprises have unquestionably been a most vital factor in the directions indicated, and if in the course of nearly eighty years the P. & O. Company has grown rich and powerful, and has become a mighty instrument for the furtherance of British commercial prestige, no one can honestly begrudge its success, or deny that it has also rendered incalculable services to the British Empire and the manifold private interests that are involved in the sum of our Imperial grandeur.

The P. & O. Company was actually founded in 1837 as the Peninsular Company, owning a few small vessels which had been running for a year or two previously between Falmouth and Gibraltar. The avowed objects of the Peninsular Company were to develop the trade between the United Kingdom and India, and in that plan lay the idea of all that was to follow in the opening up of traffic between England, and the Orient and Australasia. In 1840 a Royal Charter was granted to the newly reorganised concern known as the Peninsular and Oriental Steam Navigation Company. From that date the extension of the company's services, and its shipbuilding operations, may be said to be typical of the development of the British mercantile marine. Commencing its operations with one or two vessels of small tonnage, the P. & O. steadily enlarged its fleet, increased its sailings, and opened new services, until to-day it owns a fleet of modern vessels, second to none in the world, and aggregating a tonnage of close upon 500,000. Most of the ships of the ocean-going class are liners ranging from 7,000 up to over 16,000 tons, and providing as fine a service for long voyages as any ships in the world. Furthermore, the P. & O. Company joined forces in 1914 with the British India Steam Navigation Company, the latter possessing a tonnage of 750,000, and in 1916 with the New Zealand Shipping Company and its subsidiary, the Federal Line, with a tonnage of over 335,000. In 1917 a further increase of tonnage took place when the Union S. S. Company of New Zealand came into this powerful group. These amalga-

mations, totalling over 1,800,000 tons, may be said to be in keeping with the modern trend of shipping, and in harmony with the policy developed during the war and approved by the British Government of organising great coöperative combines to strengthen Britain's mercantile shipping by standardising world services, and in other ways eliminating all the weaknesses of the old competitive system. The capital of the Peninsular and Oriental Steam Navigation Company at the close of 1916 was £5,743,694, paid up, and debenture stock totalled £1,700,000. Substantial reserve funds have been built up, and on a most conservative estimate the assets of the company were calculated at £12,000,000. On the huge capital of the company a dividend of two and one-half per cent for the half-year was paid on the preferred stock, and a dividend of six per cent with a bonus of six per cent, on the deferred stock.

The principal services maintained by the P. & O. are a fortnightly mail service between England and the Far East, and a fortnightly service on the same route by intermediate steamers; a fortnightly mail service to Australia *via* Colombo; a weekly service with Bombay and Calcutta; a service between England and Australia *via* the Cape, and numerous subsidiary or connecting services. It is to the credit of the P. & O. that throughout the war, despite the fact that many of its ships have been taken over by the British Government for war service, and that others have been sunk, it has maintained its sailings with great regularity, and has continued to give shippers and passengers the very best service possible under most trying conditions.

In so far as its connection with Japan is concerned the P. & O. took its share in the pioneering of British trade interests, and established an office at Yokohama as far back as 1866. The old portion of the present buildings at No. 15 Bund, is one of the landmarks of the early history of the port. The Kobé office was opened in 1888. Previously the company had been represented at what was then an outport, by commercial agents, but the growth of Kobé led to the opening of a direct branch at No. 109 Ito Machi, and in 1902, consequent upon the elevation of Kobé to the position of the most important port of call in Japan, the P. & O. made the Kobé branch its head office. The Chief Agent for Japan, Mr. Alf Woolley, is stationed at Kobé, and has under his direction the branch at Yokohama and the agencies at Nagasaki and Moji. Mr. Woolley has had a lengthy experience in the service of the P. & O. Company. At the time of writing the company's liners are not coming on to Japan, owing to war conditions, but are making Shanghai their terminal port in

the Far East. What the post-war arrangements may be, rests, of course, with the Directors and General Management, but it is safe to say that the company, which in the past has played so prominent a part in the exploitation of the Eastern Hemisphere in Britain's interests, will not be behind any competitors in providing the most complete services. The P. & O. policy is a far-sighted one, Imperial in tone and vision, as may readily be seen from a perusal of the Chairman's speeches at the annual meetings. With the additional strength which the company has gained by the absorption of other shipping enterprises, it is fairly easy to predict for the P. & O. a greater career of prosperity after the war than it has even realised in its splendid past.

YAMASHITA STEAMSHIP COMPANY, LIMITED

THE rapid development of the Japanese mercantile marine owes a great deal to men like Mr. Kamesaburo Yamashita, who took a vital interest in its upbuilding more than twenty years ago, long before the war boom started, and when to build and own ships was a risky business. Since the war broke out many fortunes have been made, and while all industry and enterprise is entitled to its full reward, there is an added satisfaction in those cases where full success has come to the pioneers of an industry. This is so with Mr. Yamashita, who is now the head of one of the most important and most highly respected shipping concerns of Japan.

Mr. Yamashita originally started in business as a coal merchant, and in 1894 established the Yokohama Coal Company. He was all along interested in shipping, but it was not until 1903 that he was able to start as a ship-owner. Even then his first effort was a small one, one ship only, the *Kisagata Maru*, being run as a freight vessel. Steadily, however, a fleet of ships was obtained, and in 1911 the business was extended by the formation of the Yamashita Gomei Kaisha. The head office was then in Tokyo, and the Kobé office was considered as a branch. Regular progress was made, the fleet being gradually extended, and the operations increased till the great development in Japanese shipping took place after the outbreak of the European War. Then the Yamashita Company realised the full tide of success, and in May, 1917, it was transformed into a limited liability company, known as the Yamashita Steamship Co., Ltd., with a capital of 10,000,000 yen. Even so, the control and direction of affairs, as from the inception of business in 1894, has remained in the hands of the Yamashita family, assisted by highly experienced and loyal



YAMASHITA KISEN KABUSHIKI KAISHA: A SMALL SECTION OF THE GENERAL OFFICE, KOBÉ—THE HANDSOME RECEPTION ROOM
IN THE KOBÉ OFFICE—THE MANAGER'S PRIVATE OFFICE, KOBÉ—THE HEAD OFFICE BUILDING, KOBÉ

staffs and some of the most capable shipping men in Japan, as directors of the large interests involved.

The Yamashita Steamship Co., Ltd., is engaged in general shipping business, comprising freight carriage on all ocean routes, contracting for freight space, intermediary operations for the sale, purchase, and chartering of ships, and so on. The company is the agent for Shaw, Adams & Co., London, and does a large insurance business in ordinary and war risks, besides acting as agents for ship-owners, arranging charter parties, etc. Coaling operations are also carried out on a large scale, the company being in a position to supply fuel at any port at home or abroad. The world-wide nature of the Yamashita operations may be gathered from the fact that the company has its agents at London, New York, Seattle, San Francisco, Shanghai, Hongkong, Singapore, Penang, Calcutta, Colombo, Bombay, Port Said, Sydney, Melbourne, and Paris. In London, Paris, New York, Seattle, and Singapore, the company maintains its own staffs. The Yamashita Steamship Co., Ltd., has won a deservedly high reputation in shipping circles, for its businesslike methods and for its faithful handling of cargoes and chartered vessels. It also is accredited with being one of the oldest and best experienced concerns in marine transportation and insurance, its connections abroad being of the highest character. To-day the company's head office is at No. 47 Sakayemachi, Nichome, Kobé, that port being the centre of the shipping industry in the Orient. The Tokyo branch office is at No. 22 Cofukuchō, Nihonbashi-ku, and there is a despatch office at No. 3114 Higashi Honmachi, Shichome, Moji. Mr. Kamesaburo Yamashita is President of the company and the other Directors are Messrs. Kan-ichiro Matsuki (Vice-President), Masasuke Itani, Shigeru Hata, and Buhei Hayashi, with Mr. Toyochiyo Machida as Auditor.

The company owns the following steamers:

| VESSEL | TONS |
|---------------------------------|-------|
| <i>Teikoku Maru</i> | 7,300 |
| <i>Yoshida Maru No. 2</i> | 6,820 |
| <i>Yoshida Maru No. 3</i> | 6,800 |
| <i>Itsukushima Maru</i> | 4,800 |
| <i>Komagata Maru</i> | 4,320 |
| <i>Buyo Maru</i> | 4,200 |
| <i>Bushu Maru</i> | 4,100 |
| <i>Asahi Maru</i> | 4,100 |
| <i>Otaro Maru No. 2</i> | 4,100 |
| <i>Otaro Maru No. 3</i> | 4,100 |
| <i>Togo Maru</i> | 4,000 |
| <i>Canton Maru</i> | 3,700 |
| <i>Yechigo Maru</i> | 3,650 |
| <i>Akebono Maru</i> | 3,380 |

| VESSEL | TONS |
|-----------------------------|-------|
| <i>Toyotomi Maru</i> | 3,300 |
| <i>Fusan Maru</i> | 3,100 |
| <i>Doyo Maru</i> | 3,000 |
| <i>Sodegaura Maru</i> | 1,850 |

This makes a total of eighteen ships, with a deadweight tonnage of 76,620. In addition, there are three ships under construction which have a combined tonnage of 24,900 tons. Vessels chartered by the company for various fixed periods are as follows:

| VESSEL | TONS |
|-----------------------------|-------|
| <i>Shinko Maru</i> | 4,600 |
| <i>Wada Maru</i> | 4,500 |
| <i>Asahi Maru</i> | 3,500 |
| <i>Shoka Maru</i> | 3,300 |
| <i>Anyo Maru</i> | 3,150 |
| <i>Chiyoda Maru</i> | 2,350 |
| <i>Tomashima Maru</i> | 2,250 |
| <i>Kiyo Maru</i> | 2,100 |
| <i>Takushima Maru</i> | 2,100 |
| <i>Miyo Maru</i> | 3,350 |
| <i>Haryo Maru</i> | 3,000 |
| <i>Heiwa Maru</i> | 3,000 |
| <i>Kinko Maru</i> | 2,700 |
| <i>Katori Maru</i> | 2,700 |
| <i>Toto Maru</i> | 2,650 |
| <i>Ginzan Maru</i> | 2,500 |
| <i>Fukuju Maru</i> | 2,350 |
| <i>Kaiko Maru</i> | 2,250 |
| <i>Hirate Maru</i> | 2,150 |
| <i>Asozan Maru</i> | 2,100 |
| <i>Choko Maru</i> | 1,900 |
| <i>Masaki Maru</i> | 1,600 |
| <i>Royetsu Maru</i> | 1,580 |
| <i>Jun Maru</i> | 1,500 |
| <i>Shintsu Maru</i> | 1,500 |
| <i>Yetsuyo Maru</i> | 1,000 |
| <i>Ten-un Maru</i> | 910 |

This makes a total of twenty-seven vessels, of an aggregate tonnage of 66,590.

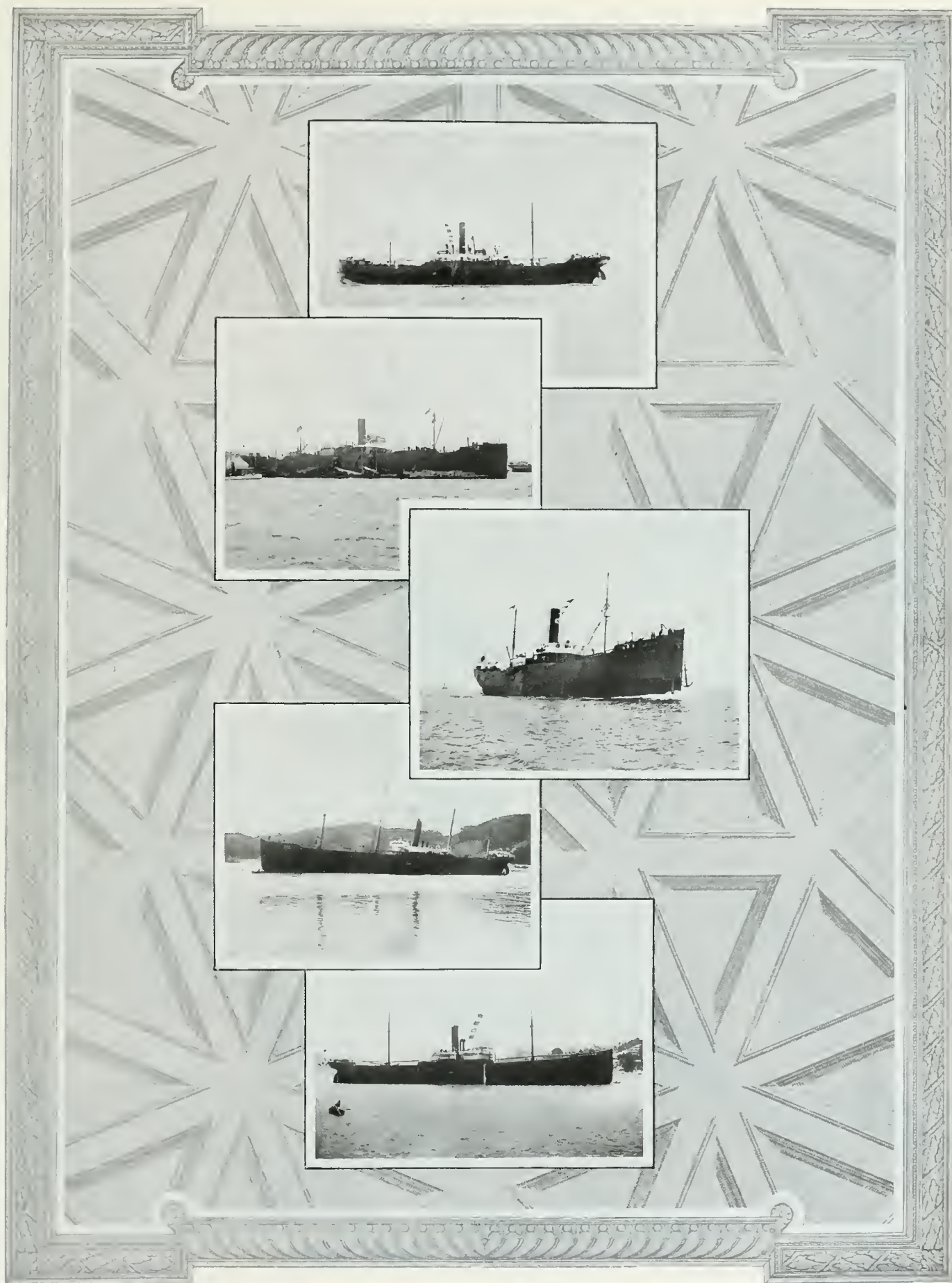
The telegraphic address of the Yamashita Steamship Co., Ltd., is "Yamashita Kobé," the codes used being A. B. C. 5th Edition; A. I. Code, Scott's 1906 Edition (1909 reprint); Watkin's code and appendix, and Bentley's. (See also page 190.)

THE KATSUDA SHOKAI

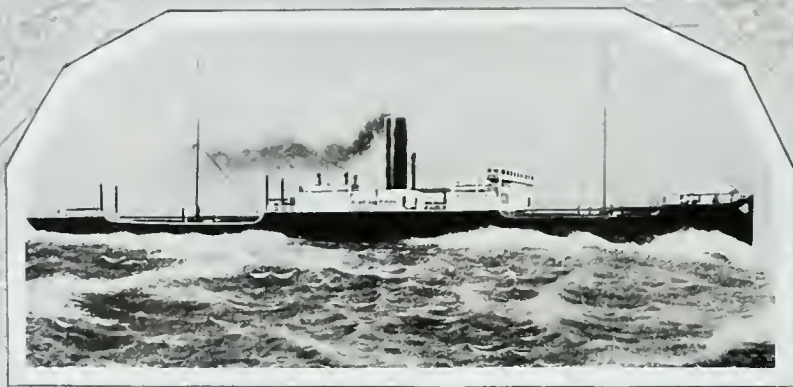
JAPAN is justly proud of her magnificent merchant marine, which in these strenuous days bears her banner to the four corners of the earth, and demonstrates to the world the wonderful progress that the Empire has made. But the national pride in the great development that has taken place is merely the expression of the individual pride of a few far-seeing determined men, who years ago began the hard struggle to build the

merchant marine of Japan, and who now see the fulfilment of all their hopes and desires in the remarkable prosperity of the shipping industry, which by their efforts alone has been made a source of national wealth and honour. Among such men Mr. Ginjiro Katsuda occupies a conspicuous and honoured position. He is one of the few who put his faith in the future of the shipping business of Japan, and never lost it. Through the early days, when to establish a merchant marine that might do credit to the Empire seemed only the hope of a dreamer; through the dark times of depression, when all connected with shipping seemed to be threatened with bankruptcy, Mr. Katsuda has never doubted the future of the industry. Moreover, he has never ceased to strive with energy and determination to foster and develop it, staking his fortune, and devoting all his business genius to its advancement. If to-day Mr. Katsuda is well rewarded by his own success for his courage and his devotion to his life work, then every one is ready to congratulate and thank him, for he has rendered as much service to his country as he has to his private interests. To-day Mr. Katsuda stands a prominent figure in the shipping and commercial world of Japan. As the head of the Katsuda Shokai his name is familiar, not only throughout Japan, but overseas, as that of a patriotic, progressive, and highly successful merchant prince.

Mr. Katsuda was graduated from the Aoyama Mission School in Tokyo, and then went through a hard apprenticeship in business, making a special study of the shipping industry as it existed at that time. Those who knew him at that period of his career speak of the diligence and self-sacrificing energy with which he applied himself to the study of what was to be his profession in life. After considerable experience Mr. Katsuda established himself in business on his own account at Kobé, opening as the Katsuda Shokai in 1900. At that time it looked as though the shipping business would prosper in a modest way, but scarcely was Mr. Katsuda fairly started than the Russo-Japanese War intervened. The trade depression that followed that conflict is one that will long be remembered by Japanese business men, and especially by those who had not had the opportunity to accumulate reserves and strengthen themselves in a business sense. Not a few of Mr. Katsuda's fellow merchants went into bankruptcy, and the outlook was generally a gloomy one, but Mr. Katsuda maintained a cool and calm attitude through the crisis, and actually launched out in new directions. He chartered a few ships, which laid the foundations of the great business which he now controls.



KATSUDA SHOKAI: S. S. "SHINBU MARU" (5,243 TONS GROSS)—S. S. "KOAN MARU" (3,383 TONS GROSS)S. S. "BANDAI MARU" (4,600 TONS GROSS)—S. S. "IDE MARU" (4,364 TONS GROSS)—S. S. "SAIKAI MARU" (3,750 TONS GROSS)



UCHIDA STEAMSHIP COMPANY, LIMITED: S. S. "TAIYU MARU"—ELEVATION OF FINE NEW PREMISES NOW IN COURSE OF CONSTRUCTION AT KOBÉ

The country recovered its trade buoyancy, and with the outbreak of the great war Mr. Katsuda's shipping investments began to realise for him all that he had hoped for. From chartering ships, he went into the business of owning them, and in this connection he has carried through some record deals. A recent transaction on the part of Mr. Katsuda is typical of the man, and will indicate with what confidence and courage he operates. Seven steamers were ordered from the Osaka Iron Works for the Nippon S. S. Company, to be launched next year. Mr. Katsuda approached the Nippon S. S. Co. with an offer of purchase. Their reply was that if he bought the steamers one by one the price would be Yen 750 per ton, but if he would take the lot the price would be Yen 700. Apparently the idea was that Mr. Katsuda, though a rich man, would hesitate to pay Yen 42,000,000 for the seven ships, but he at once closed with the offer and paid over the cheque for Yen 8,400,000, the amount of the deposit. This is the biggest deal in the history of Japanese shipping. The steamers in question comprise two vessels of 5,000 tons and five of 10,000 tons, a total of 60,000 tons. They are to be finished, one a month, from June to December, 1918. This purchase will give the Katsuda Shokai a total fleet of twenty vessels, all of the highest class, aggregating a deadweight of 144,435 tons. Of these twenty vessels, there are the seven now building at the Osaka Iron Works, and the following in course of construction: 2,200 tons, to be completed October, 1917; 8,700 tons, January, 1918; 8,700 tons, March, 1918; 8,400 tons, March, 1919; and 10,000 tons, to be finished in August, 1918. The vessels in commission are: *Shimbu Maru* (7,735 tons); *Ide Maru* (6,600 tons); *Shikai Maru* (5,850 tons); *Tosan Maru* (5,800 tons); *Kaifuku Maru* (5,100 tons); *Koan Maru* (4,850 tons); *Yei tai Maru* (4,400 tons), and *Kotchira Maru* (4,100 tons). In addition to this formidable fleet, which is a huge growth from a few years ago, the Katsuda Shokai is now chartering about twenty vessels of a total of close on 50,000 tons.

The Katsuda Shokai, besides being ship-owners, are brokers for the sale, purchase, construction, and chartering of steamers, and in this connection their operations are very large. Mr. Katsuda has established a great reputation for himself as a successful business man. His qualities are recognised as somewhat remarkable in this business age. He is a man of strict probity, and strong will, as may be gathered from the determined manner in which he has forced his business to the front despite so many difficulties and through times when other people were failing in all

directions. Mr. Katsuda is also noted for his generosity and his public spirit. He has all sympathy for the weak and unfortunate, and he is not a man to yield to what he considers is not right or fair, no matter what pressure may be attempted from the highest parties in the land. He donated a new building to his Alma Mater, the Aoyama Mission School, when general contributions for the development of that institution were not so liberal as expected. Mr. Katsuda is always ready to devote all the time he can from a very busy life to the service of the public, from whom he had earned gratitude and respect. He is a member of the Municipal Council of Kobé City, and no man is better fitted for such a position, seeing that he pays the national tax on his interests, amounting to much more than Yen 1,000,000 per annum, in addition to being the biggest tax-payer in the Hyogo Prefecture. Mr. Katsuda is also President of the Katsuda Steamship Company, Limited, of Kobé.

The Katsuda Shokai is one of the model businesses of its kind and is a monument to its founder. The Manager of the concern is Mr. Y. Murata, who is also a Director of the Katsuda Steamship Company, Limited.

THE UCHIDA TRADING COMPANY, LIMITED

THIS company was founded in February, 1917, by Mr. Nobuya Uchida, already well known for his successful direction of the Uchida Steamship Co., Ltd., which he established. Mr. Uchida saw a splendid opportunity for general trade for a company, and in association with business friends he created the Uchida Trading Company, Limited, with a capital of Yen 1,000,000, of which Yen 250,000 was at once paid up. The new company established its head office at No. 14 Maye Machi, Kobé, and entered upon the general business of importers and exporters, commission merchants, ships' agents, and brokers for the sale, purchase, or chartering of vessels, insurance brokers, and manufacturers. A vigorous policy was inaugurated, and the rapid development of the company's interests resulted in the paid-up capital being raised in the course of a few months to Yen 500,000. The Uchida Trading Company, Limited, handles all lines of metals, steel manufactures, machinery, electric accessories, cereals, chemicals, coal, pottery, porcelains, piece goods, semi-porcelains, and general merchandise. The principal imports are machinery, metals, steel, chemicals, drugs, electric parts, natural products, Indian goods, and general lines. The exports are mainly coal, pottery, porcelain, etc., produce and general lines. At the date of writing

the necessary buildings for the company's godowns, offices, etc., are under construction. Branches of the company are established abroad as follows: The Uchida Trading Co., Ltd., 120 Broadway, New York City, U. S. A.; Uchida & Co., Ltd., 463 Mills Building, San Francisco, U. S. A., and the Uchida Trading Co., Ltd., No. 6 Commercial Building, Calcutta, India. The branches in Japan are at No. 1, Yayasue-cho, 1 chome, Kojimachi-ku, Tokyo, No. 40 Kitahama, 3 chome, Higashi-ku, Osaka, and No. 3 Minami Otsubocho, Nakaku, Nagoya. Mr. Nobuya Uchida is President of the company and the other principal officers are Messrs. Hironobu Kurasawa, and Kawazoye Taneichiro, Managing Directors, and Mr. Nakamura Daizo, Director.

THE UCHIDA KISEN KABUSHIKI KAISHA (THE UCHIDA STEAMSHIP CO., LIMITED)

THE Uchida Kisen Kabushiki Kaisha is the creation of Mr. Nobuya Uchida, who is associated prominently with several large and important enterprises centred in Kobé. This shipping company came into existence as lately as the end of 1914, but it has developed rapidly, and now takes a prominent place in the Japanese mercantile marine. Originally the capital of the company was only Yen 250,000, but owing to the rapid expansion of the company's interests and the necessity for a continual strengthening of the fleet to take care of all the transportation offering, the capital has now been increased to Yen 10,000,000. The Uchida fleet, sailing under the blue and white house flag that has become so well known all over the East and farther abroad, comprises the following ships: *Unkai Maru II*, 6,300 tons, deadweight capacity; *Fukui Maru*, 5,950 tons; *Aikoku Maru*, 4,720 tons; *Taisho Maru*, 4,500 tons; *Taito Maru*, 4,500 tons; *Urusan Maru*, 3,600 tons; *Kyodo Maru No. 13*, 2,800 tons, and *Sorachi Maru*, 2,150 tons. In addition, the following vessels are now under construction, some of them to be completed at a very early date: *Taiyu Maru*, 8,700 tons; *Taigi Maru*, 7,000 tons; *Tuimei Maru*, 1,500 tons; *Taishin Maru*, 1,500 tons; *Taiki Maru*, 1,200 tons, and five cargo steamers of from 1,000 to 2,000. The total of this fleet, in commission or building, is 62,820 tons.

Mr. Uchida, President of the Uchida Steamship Co., Ltd., has as his co-directors Messrs. Kasahara Taneji and Kawazoye Taneichiro. The company's head office is at No. 14 Maye-machi, Kobé. Through the Uchida Trading Company, Limited, the Uchida Kisen Kabushiki Kaisha is represented abroad at New York, San Francisco, and Calcutta.



GOKO SHOKAI, LTD.: S. S. "TAIYO MARU"—THE KOBÉ PREMISES—A CORNER OF THE KOBÉ OFFICES



KOBÉ SHIPPING OFFICE OF OKAZAKI STEAMSHIP CO., LTD.—S. S. "NISSEI MARU," ONE OF THE COMPANY'S SHIPS

GOKO SHOKAI, LIMITED

THIS business was founded in 1913 by Mr. K. Kawachi and his partners for the purpose of engaging in shipping enterprises generally, and it is admitted to have been strikingly successful, thanks to the efficient management and long experience in mercantile and shipping affairs of the founder. The head office of the partnership was established at Kobe, and the firm quickly demonstrated its progressive character and the vigour of its operations by taking over the North Korean Regular Service. In 1915 two cargo steamers of the 4,000-ton class, one of 5,500 tons, and one of 5,800 tons, were purchased, and the Goko Shokai further firmly established itself as a strong shipping concern by disposing of three vessels at a favourable price, and contracting for newer and better types of steamers. Unceasing attention to the shipping situation gave the concern a high reputation, and no difficulty whatever was experienced in 1916 in transforming the partnership into a limited liability company. The new company, under the direction of Mr. Kawachi, continued the earlier policy

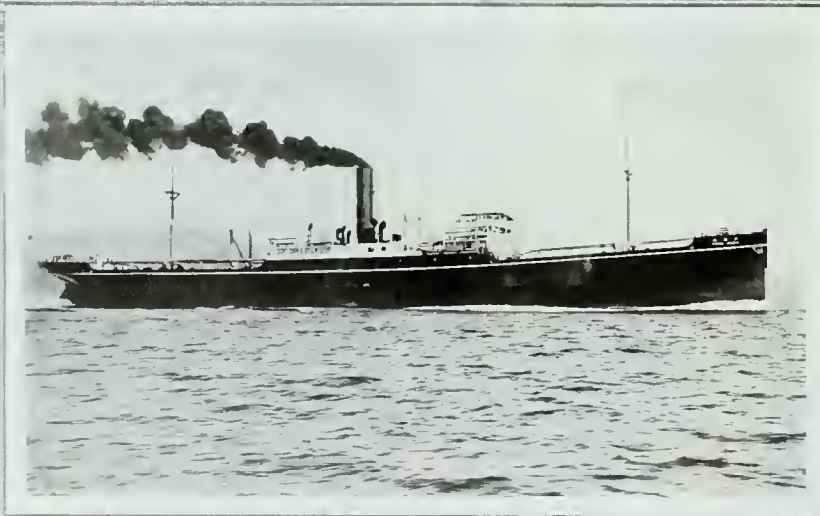
of expansion, and two new 5,500-ton class steamers, two of 3,000 tons, one of 1,800 tons, and a coasting steamer of 820 tons were acquired in 1916 and 1917. These vessels have been engaged all over the Atlantic, Pacific, and Indian Oceans. One vessel was lost in 1916. Besides the fleet actually in commission at the end of October, 1917, the Goko Shokai, Limited, then had under construction three steamers, one of which, a vessel of 6,800 tons deadweight capacity, built under the Isherwood System, was near completion. The company's fleet consists of the following vessels:

| | |
|--|------------------|
| S. S. <i>Ume Maru</i> | 5,700 tons D. W. |
| S. S. <i>Taiyo Maru</i> | 5,500 tons D. W. |
| S. S. <i>Komakata Maru</i> | 4,320 tons D. W. |
| S. S. <i>Satsuki Maru</i> | 3,200 tons D. W. |
| S. S. <i>Chiyoda Maru II</i> | 1,850 tons D. W. |
| S. S. <i>Kotohira III</i> | 1,899 tons D. W. |
| S. S. <i>Shinsei II</i> | 820 tons D. W. |
| New steamer (building) | 6,800 tons D. W. |
| New steamer (building) | 2,000 tons D. W. |
| New steamer (building) | 2,000 tons D. W. |
| <i>Total deadweight capacity</i> | 34,089 tons. |

Mr. Kawachi, President of the Goko Shokai, Limited, is a graduate of the Imperial Japanese Mercantile Marine School. He served for twenty-five years as Chief Engineer and Superintendent Engineer of the Nippon Yusen Kaisha, and was also Shipbuilding Superintendent of the South Manchuria Railway Co., Ltd. For his services during the Sino-Japanese and Russo-Japanese wars, when he was engaged in transport work, Mr. Kawachi was decorated with the Order of Merit of the fifth class. It was with this experience at his command that Mr. Kawachi decided to establish the Goko Shokai as ship-owners, ship and freight brokers, and engineering surveyors, etc.

THE OKAZAKI STEAMSHIP COMPANY, LIMITED

THIS is one of the pioneer shipping companies of Japan and was founded by Mr. Tokichi Okazaki, who has had over thirty years' experience of the mercantile marine, and may be regarded as one of the pioneers of the overseas transportation interests of Japan. In the old days all his



FRONT ELEVATION OF NEW PREMISES OF HASHIMOTO SHOJI KABUSHIKI KAISHA AT KOBÉ—S. S. "KURAMASAN MARU,"
ONE OF THE COMPANY'S STEAMERS

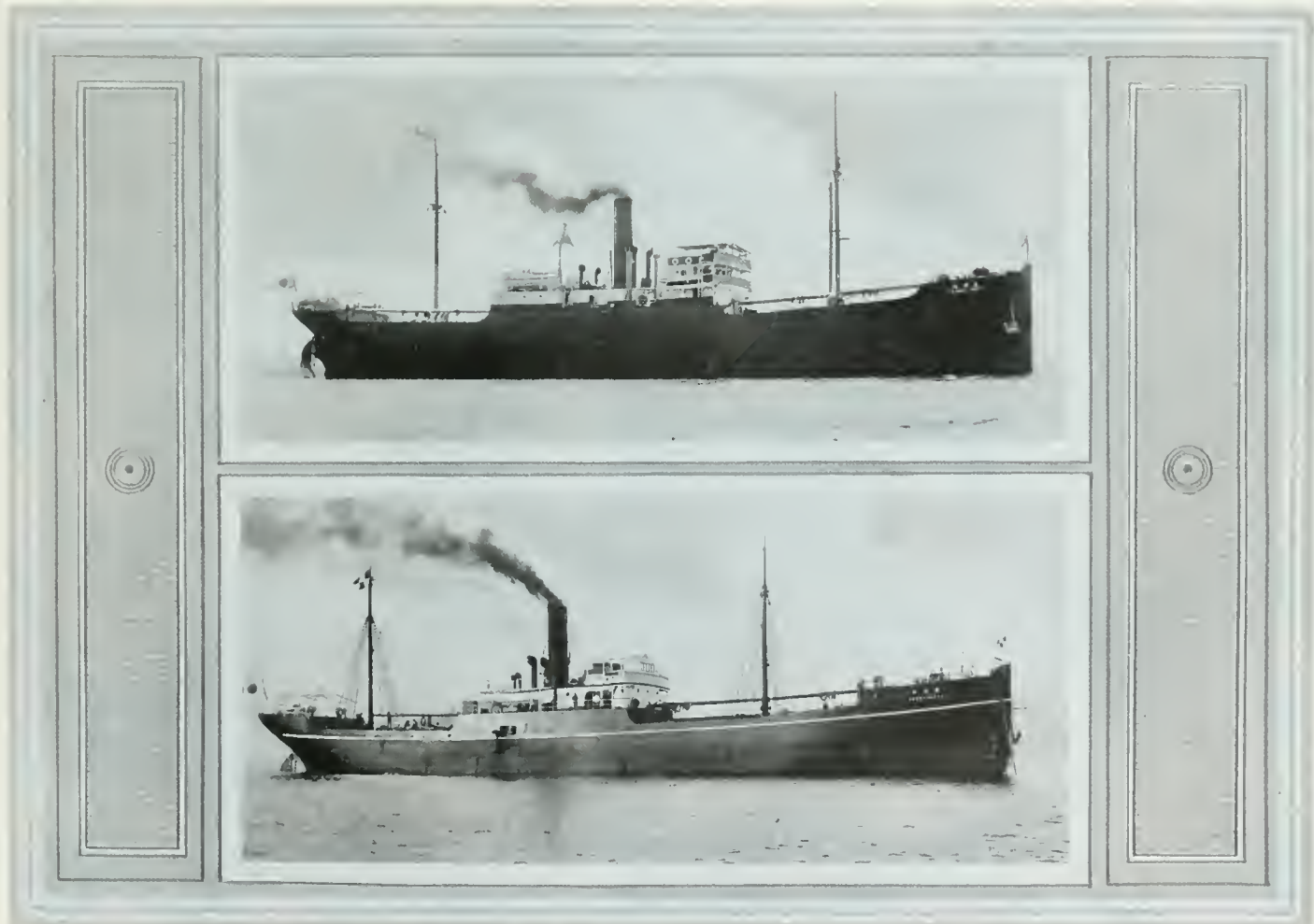
ships had the prefix of "Nichi," so that they could be readily distinguished from others, and ships of the "Nichi Line," as it was called, were well known in British waters, long before the present war gave such a stimulus to Japan's shipping in foreign fields. Although doing a substantial business at that time, the Okazaki Steamship Co., Ltd., has expanded its interests very widely since the war broke out, its ocean freight services including American as well as European routes. Until a comparatively recent date the company owned thirteen ships, but when the great demand for hulls arose, the oldest vessels were sold at good prices, and the proceeds held for future investment. At the time of writing the Okazaki Company owns the following six vessels, which have a tonnage of approximately 18,000: *Tokai Maru*, *Nichizo Maru*, *Nissei Maru*, *Nisshu Maru*, *Nichihoku Maru*, and *Nichinan Maru*.

The President of the company is Mr. Tokichi Okazaki, and the Managing Director is his son, Mr. Tadao Okazaki. The head office of the company is No. 56 Naniwa Machi, Kobe.

HASHIMOTO SHOJI KABUSHIKI KAISHA

A FEATURE of the industrial expansion of Japan is the manner in which large commercial combinations have sprung up, having for their object the coördination of effort between different departments of commerce. At the head of this movement will be found some of the principal men of the country, such, for instance, as the Messrs. T. Hashimoto, Sr., and K. Hashimoto. The former is a member of the House of Peers and the latter, his brother, is a member of the House of Representatives. These two gentlemen, who are very closely associated with the commercial affairs of Japan, are the principals of the Hashimoto Steamship Co., Ltd., and many other organisations. They founded the Hashimoto Shoji Kabushiki Kaisha, or Hashimoto Trading Co., Ltd., by combining the activities of two firms that had been carrying on business for over forty years, the one at Nagasaki and the other at Sasebo, chiefly dealing in ships' supplies, machinery and materials for mining, railways, etc. Since the amalgamation of these interests the Hashimoto Trading Co., Ltd., has extended its operations in many directions,

in keeping with the expansion of the circle of Japan's commercial influence. The company not only carries on the original business of the two firms referred to, but it has established a shipping department, and also a department for the import and export of every class of commodity required in Japan, or needed by other countries. The capital of the company is Yen 5,000,000. Its activities comprise the ownership and management of steamers, the manufacture of electrical supplies and other lines, and dealing in all kinds of metals, machinery, firebricks, chemicals, graphite, etc., for export. To mention a few of the export items, they are, besides those just stated, rice and other cereals, silk and silk goods, cotton goods, camphor, natural produce, shell buttons, porcelain, glassware, lacquer ware, hemp and chip braids, matches, matting, wooden and bamboo wares, etc. Mr. T. Hashimoto, Sr., President of the company, is also President of the Nagasaki Chamber of Commerce, besides being on the directorate of several other enterprises. His brother, Mr. K. Hashimoto, is Managing Director, and is also President of the Hashimoto Steamship



S. S. "GENMEI MARU" AND S. S. "SENKAI MARU," OF THE FLEET OF UYENISHI SHOKWAI (UYENISHI SHIPPING CO.)



KOBÉ TOWA STEAMSHIP CO., LTD.: TYPE OF STEAMER OWNED BY THE COMPANY, S. S. "TOTAL MARU"—
THE HEAD OFFICE—ANOTHER OF THE COMPANY'S STEAMERS, S. S. "ASAMA MARU"

Company, which has a capital of Yen 10,000,000. Members of both families are shareholders in the Hashimoto Trading Co., Ltd.

The plans of the directorate of this progressive concern for further expansion are by no means complete. Large though the scale of the company's present-day operations are, it is intended to multiply the company's activities and widen its circle of business, as fast as the opportunity arises. Expansion is the constant idea of the directorate and the staffs of the various departments. Foreign trade is being vigorously developed, and the aim of the Messrs. Hashimoto is not only to extend their own commercial influence, but to assist in the expansion of Japan's interests generally. Their coöperation in the country's progress is already a valuable factor and is recognised by the commercial community at large.

THE KOBÉ TOWA STEAMSHIP COMPANY LIMITED

This company is a development of the Tungsho and Company concern, well known for its widespread interests in Manchuria. Tungsho and Company was established in 1907 in Newchwang, China, and started a general business comprising shipping, the maintenance of godowns and wharves, coaling, the spinning of thread and cotton yarn, and the export of special Manchurian products. The business developed to a considerable extent and branches were established at Dairen, Lungkow, Tsingtao, Kobé, and Osaka. In 1913 the shipping interest of Tungsho and Company was made independent, a new organisation known as the Kobé Towa Steamship Co., Ltd., being formed with a capital of Yen 1,000,000. At the same time, the new concern purchased a fleet of ships from the Gomei Kaisha Towa Koshi, the fleet comprising the *Asama Maru* (6,900 tons), *Towa Maru* (4,500 tons), *Tokei Maru* (3,600 tons), *Toryu Maru* (2,850 tons), *Totai Maru* and *Toyu Maru* (each 5,200 tons), *Kissho Maru* (3,200 tons), and the *Longyu Maru* (2,500 tons). With such a fleet of fine modern ships the Kobé Towa S. S. Co., Ltd., entered upon the freight transportation business on the high seas and in waters adjacent to Japan, and the rapid expansion of business led to the increase of the capital to Yen 10,000,000, and a further demand for ships. At the present time the company has under construction six freight carriers aggregating 20,000 tons. The entire capital has been paid up, and the company is in a strong financial position, being supported in its directorate by some of the best known men in Japanese business circles. The President

is Mr. K. Kikuchi, who is also President of the Maizuru Coal Mining Co., Ltd., which is capitalized at Yen 1,000,000. Other Directors are Messrs. S. Tsuda and M. Toda. The head office of the Kobé Towa Steamship Co., Ltd., is at No. 26, Kaigan-dori, Kobé.

THE TAISHO STEAMSHIP COMPANY, LIMITED

The prosperous nature of the Japanese shipping industry is well illustrated in the case of the Taisho Steamship Company, Ltd., of Kobé, which has been established less than two years, and yet is making such profits as yield up to 60 per cent on the paid-up capital. This company was founded in March, 1916, with a view to trade in home waters. Three small steamers of less than 1,000 tons each were purchased, but the business turned out to be so successful that larger ships were decided upon, and the *Bandai Maru* and *Ikoma Maru*, each of over 4,500 tons, were acquired. In April, 1917, the company's capital was increased from the original Yen 500,000 to Yen 1,500,000. The two large ships were leased to a foreign Government on the most profitable terms, and the three small steamers with which the company started its operations were sold at a profit of Yen 580,000. With the proceeds of this sale two new ships, each of 2,000, were bought, and were chartered to other owners for use on safe ocean routes. The Taisho Steamship Co., Ltd., is now having constructed by the Osaka Iron Works, Ltd., a new freight steamer of 6,900 tons. To carry out a further construction policy the capital is to be increased to Yen 5,000,000. The main object of the company is to purchase or build ships and charter them while the present advantageous rates last. This means that immediately ships are leased the profits of the concern can be readily calculated. For the first two months of operation the dividend was 15 per cent per annum. In the second period, covering six months, the dividend was increased to 30 per cent. The third period realised 40 per cent, and it is anticipated that for the six months ending November 30, 1917, the dividend will reach 60 per cent, with still another increase in the future. The company owns a tonnage of 25,600, the value of the ships being conservatively estimated at Yen 15,000,000, which is a large figure for a concern with a capital of only Yen 1,500,000.

It is confidently anticipated on the basis of present charters that the revenue of the Taisho Steamship Co., Ltd., for the six months ending May 31, 1918, will be Yen 3,064,755, and this will leave a net profit of approximately Yen 2,088,000. From the advances in prices alone, since the company

was formed, the ships owned show a profit on the books of over Yen 3,000,000. The prospects of the Taisho Steamship Co., Ltd., are exceedingly bright. Following are the principal officials of the company: Managing Directors, Messrs. Y. Fukuhara, S. Mayekawa, and Y. Tsujimura; Directors, Messrs. C. Ito, M. Ishikawa, Y. Matsushiro, and N. Kishimoto; Auditors, Messrs. C. Ito, S. Kawanishi, and G. Takahi. The company's fleet to-day comprises the *Bankoku Maru* (9,400 tons D. W.), *Ikoma Maru* (4,600 tons D. W.), *Taki Maru* (1,900 tons D. W.), *Jun Maru* (1,600 tons D. W.), *Fukusan Maru* (1,400 tons D. W.), and a new steamer of 6,900 tons under construction. The head office of the Taisho Steamship Co., Ltd., is at No. 49, Sakayemachi, Nichome, Kobé.

NISSHIN SHIPPING AGENCY COMPANY, LIMITED

This company is closely associated with the Taisho Steamship Co., Ltd., and transacts a large business as brokers for the sale and purchase of steamers, brokers for charter and freight, and as general shipping agents, etc. The Nisshin Shipping Agency Co., Ltd., was founded in 1902, and its capital is Yen 50,000. Messrs. Y. Fukuhara, Y. Tsujimura, and J. Tanaka were the founders, and later on they were instrumental in forming the Taisho Steamship Co., Ltd., which has been a highly successful venture. These gentlemen are Managing Directors of both concerns. The Nisshin Shipping Agency Co., Ltd., occupies a three-story stone and brick building at No. 49 Sakayemachi, Nichome, Kobé, the business employing a staff of fifteen and being known to the Japanese as the Nisshin Kaiun Shokai Kabushiki Kaisha. Agents are appointed in London, Christiania, Singapore, Hongkong, Shanghai, San Francisco, Manila, Sydney, and Melbourne.

AMASAKI HONTEN

The family name of Amasaki is very prominent in all affairs of the Osaka and Kobé centres. It is to the fore in all business and industrial projects, and is closely associated with many successful undertakings, and with enterprises of special value to the Japanese Empire. Mr. Isaburo Amasaki is the head of the family, and in that capacity controls the various undertakings which are so widely known under his name. The Amasaki interests are purely under private ownership. There is no company combination, but everything is directed from the Amasaki Honten, or head office at Osaka. The business may be divided into four departments. From the head office at No. 175 Shimofukushima, 3rd street,



NEW KOBÉ PREMISES OF TAISHO KISEN KAISHA (TAISHO STEAMSHIP CO., LTD.)

Kita-ku, Osaka, the other departments are controlled. The head office also handles the mining enterprises of the family, and attends to the leasing and building of properties and general direction of the real estate.

The Amasaki Steamship Department is at No. 7 Tomjimaicho, Kita-ku, Osaka, and has its branches at other centres in Osaka, as well as at Kobé, Takamatsu, Shimonoseki, Wakamatsu, Sasebo, Nagasaki, and Gunsan, Korea, besides controlling about eighty agents at various places. This department has about thirty steamers regularly plying between Japanese ports and Korea, and to Vladivostok and ports in North China. The Amasaki Steamship Line has been in existence for very many years and has rendered excellent service to Japan in maintaining regular communication with Asia, as well as serving the Empire in time of need. In both the China-Japan and Russo-Japanese wars, the department placed its steamers at the disposal of the Government for naval and military use. Again, in the Japanese operations against Tsingtao in 1915, the steamers of this line were utilised by the Imperial Navy and Army Departments, and some of them took part in the engagements against the Germans. The policy of the Amasaki Steamship Department is specially directed toward the opening up of Korea. Mails are carried between Japan and Korea without any remuneration to the department, and so valuable have been the services rendered that Mr. Amasaki was awarded the Taikyoku Decoration of the Fourth Class by the ex-Emperor of Korea.



A CORNER IN THE KOBÉ OFFICES OF NISSHIN KAIUN SHOKAI (NISSHIN SHIPPING AGENCY CO., LTD.)



AMASAKI HONTEN: SHIPPING OFFICE OF THE COMPANY AT OSAKA—S. S. "AKAGI MARU," TYPE OF THE COMPANY'S STEAMERS
 (THIS SHIP WAS FORMERLY A CHINESE GUNBOAT, CAPTURED BY THE JAPANESE)—
 MR. AMASAKI'S GENERAL BUSINESS OFFICES AND RESIDENCE AT OSAKA

The Amasaki Shipbuilding Department is at No. 7 Tomijimacho, Kita-ku, Osaka. Iron works, machine shops, and dockyards have been established at No. 52, Honda, Nishi-ku. The shipbuilding yards are at No. 26 Nambajima, and also at No. 155 Shinsumiyacho, Nishi-ku, Osaka. The department builds and repairs ships for the use of the Amasaki Steamship Department, and is also carrying on an extensive construction work for ships that are leased to other companies. One instance of the capacity of the shipbuilding department is that the gunboat *Akagi*, which fought so bravely at the Battle of the Yellow Sea in the China-Japan War, was bought by Mr. Amasaki, and was reconstructed by the Shipbuilding Department. She was then given the name of the *Akagi Maru*, and is now plying in the coastal trade, reminding the Japanese perpetually of the bravery of Commander Sakamoto, who was in command of her at the battle.

The Amasaki Cultivation Department is at 4th Street Nishi, Saikemachi, Amagasaki City, Hyogo Prefecture. This department carries on a valuable work of colonisation and farm settlement. At present about 740 acres of land are leased for agriculture, close attention being given to all matters pertaining thereto.

Mr. Amasaki was born in Amagasaki City in 1867, and succeeded to the family interests on the death of his father in 1903. He was a member of the Osaka City Assembly, and is a member of the Osaka Chamber of Commerce, a member of the House of Peers, and holds the rank of Fourth Merit. Besides these honours, Mr. Amasaki is a director of the Hokoku Fire Insurance Co., Ltd., the Yachiyo Life Insurance Co., Auditor for the Osaka Soda Co., Ltd., Adviser for the Toyo Waterworks and Wood Pipe Co., and the Nippon Chemical Oil Refining Co. In addition, he is on the consulting committees of over twenty other companies. Mr. Amasaki's private address is No. 175, Shimo-Fukushima, 3rd St., Kita-ku, Osaka.

THE JAPAN STEAMSHIP COMPANY, LIMITED

This is one of the Japanese shipping companies which has come prominently to the fore with the strong advance in the marine interests of the Empire. The Nippon Kisen Kabushiki Kaisha, as it is called in Japanese, was formed in December, 1915, with a capital of Yen 10,000,000, the greater part of the capital being furnished by Mr. F. Kuhara, the principal of the Kuhara Mining Co., Ltd. Mr. Kuhara's progressive spirit is well known in Japan, and when his interest is attached to any enterprise it generally

means success. The following ships were built for the company:

| WHERE CONSTRUCTED | NAME | TONNAGE | DATE OF LAUNCHING |
|-----------------------|--------------------|---------|-------------------|
| Uraga Dock..... | <i>Uraga Maru</i> | 3,500 | April, 1916 |
| Osaka Iron Works..... | <i>Yezaki Maru</i> | 5,200 | May, 1916 |
| Osaka Iron Works..... | <i>Totai Maru</i> | 5,200 | May, 1916 |
| Osaka Iron Works..... | <i>Hirano Maru</i> | 1,830 | July, 1916 |
| Osaka Iron Works..... | <i>Mikage Maru</i> | 1,830 | Aug., 1916 |
| Harima Dock..... | <i>Misaki Maru</i> | 1,770 | Sept., 1916 |
| Osaka Iron Works..... | <i>Taki Maru</i> | 1,875 | April, 1917 |
| Osaka Iron Works..... | <i>Masaki Maru</i> | 1,875 | May, 1917 |
| Osaka Iron Works..... | <i>Fuku Maru</i> | 6,800 | Aug., 1917 |
| Osaka Iron Works..... | <i>Yamato Maru</i> | 6,800 | Oct., 1917 |

This was a fairly vigorous rate of construction for a new company, but even so, the Directors promptly entered into a contract with the Osaka Iron Works, Ltd., to construct 60,000 tons of new ships annually for five years from 1917. This in itself would soon bring the Japan Steamship Co., Ltd., up among the leaders in the shipping industry, but, not content with this progress, the company has now purchased a site of 1,240 acres near Kasado Bay, at Kudamatsu, Yamaguchi Prefecture, where the Kuhara people have started a shipbuilding yard. The construction work is now well in hand, and materials and plant have been purchased. The Japan Steamship Co., Ltd., plans to lay down by May, 1918, ten berths capable of building vessels of 10,000 tons each. In addition, workshops and equipment are being provided to carry on general steel construction work, and to turn out boilers and engines. When the yards and plant are completed the company will be able to build 200,000 tons of ships per annum.

The head office of the company is at No. 17 Harimacho, Kobé, and there is a branch office at No. 90 Kitahama, Ni-chome, Osaka. The Directors of the Japan Steamship Co., Ltd., are: Messrs. T. Tamura (President), S. Nakayama (Managing Director), and K. Takenouchi. The Auditors are Messrs. H. Nishimura and S. Yamaoka.

THE MEIJI BUSSAN COMPANY, LIMITED

The origin of this company dates back to January, 1911, when the Meiji Bussan Goshi Kaisha, a private concern, was started, to deal in coral and general merchandise. In August, 1916, the Meiji Bussan Company, Ltd., was formed, and took over the entire interests of the former concern, at the same time extending the old business and opening up new lines of activity. The paid-up capital of the company to-day is Yen 200,000, and its main business is acting as interme-

diary for the purchase, sale, and chartering of steamers, as well as for freight brokerage.

In the comparatively short time that the company has been handling this class of business it has effected the purchase or sale of six vessels, of a deadweight capacity of 35,800 tons, and has arranged time charters of forty-five vessels, of 22,510 tons deadweight, including fifteen vessels which have still to be delivered. The head office of the Meiji Bussan Company, Limited, is at No. 19 Kaigan-dori, Kobé. Mr. Tosataro Yamaji is the Managing Director of the company.

THE MEIDAI STEAMSHIP COMPANY, LIMITED

CLOSELY associated with the Meiji Bussan Company, Ltd., is the Meidai Steamship Co., Ltd., which is rapidly coming to the front among the shipping interests of Japan. The company was formed in 1916 with a paid-up capital of Yen 500,000, and at once took up charters of several ships, besides placing orders for the construction of others. The chartered vessels running in the interests of this enterprising young company are as follows:

| | |
|-----------------------------|-------------------|
| <i>Shinchiku Maru</i> | 4,500 tons D. W. |
| <i>Asosan Maru</i> | 2,100 tons D. W. |
| <i>Suki Maru</i> | 5,100 tons D. W. |
| <i>Teiko Maru</i> | 1,800 tons D. W. |
| <i>Total</i> | 13,500 tons D. W. |

The Meidai Steamship Co., Ltd., has under construction the very latest model of freighter, to be known as the *Meidai Maru*. She is of 3,500 tons D. W., and is being built by the Uraga Dockyard Co., Ltd. In addition, there are two wooden ships, each of 1,600 tons D. W., under construction, so that presently the company will have a strong fleet. Mr. Tosataro Yamaji is the Managing Director of the company, which has its office at No. 19 Kaigan-dori, Kobé.



NIPPON KISEN KABUSHIKI KAISHA (JAPAN STEAMSHIP CO., LTD.): THE KOBÉ OFFICES—VIEW OF THE SITE OF THE NEW SHIPBUILDING YARD AT KUDAMATSUCHO, YAMAGUCHI PREFECTURE—THE OSAKA OFFICES



TYPE OF STEAMER OWNED BY THE MEIJI BUSSAN CO., LTD., AND THE MEIDAI STEAMSHIP CO., LTD.

KABUSHIKI KAISHA SHOSHO YOKO

THE full description of this extremely successful enterprise with its numerous interests embracing Shipping, Mining, Imports and Exports, etc., will be found in the Tokyo and Yokohama Shipping Section of this volume. The important and somewhat different nature of the firm's business at Kobé warrants independent mention.

The Kobé branch was established three years ago in small premises which have recently given place to well appointed and commodious offices in the foreign commercial and business district of the port. The principal business is the importation of coal from China, the product of the Kailan Mining Administration, to the extent of about 700,000 tons annually. Thirty-two steamers chartered by the Shosho Yoko, representing a total tonnage of more than 77,000, are engaged solely in this business, and the exportation of timber from Hokkaido and Saghalien on the return trip. This timber is utilised for construction purposes, but principally for mining-props.

In view of the great strides made by the apan shipping business, the Shosho Yoko has

also branched out into the shipbuilding business, the yard being located at Yoshiura, but under the direction of the Kobé office. This new venture has made excellent progress, since, although barely a year in operation, it now employs about 1,300 hands and six engineers.

Two steamers of 1,500 tons each have already been launched and three other vessels of an average of 2,000 tons each are well advanced. Further, it is expected that work on two steamers of 6,000 tons each will shortly be commenced. The capacity of the yard is at present about 20,000 tons annually.

The Kobé branch is under the management of Mr. T. Ogawa, with Mr. K. Inaishi as assistant manager, and a staff of eighteen clerks.

As pointed out in the other article on this firm (see page 192), Mr. T. Yamamoto, the senior partner and founder, is active in the personal supervision of all his interests.

THE OCEAN TRANSPORT CO., LIMITED

THE Ocean Transport Co., Ltd., is at present operating a fleet of 23 steamers, representing an aggregate of 150,000 tons,

and this despite the fact that the company has not yet been a year in operation. There is an air of purpose about the whole enterprise which impresses, and if the reason is somewhat intangible on the one hand, there is plenty of solid justification for the prediction that it will "go far" in the persons of the following directors and advisers: Mr. C. Ito, whose interests receive special description elsewhere in this publication; Mr. T. Idichi, equally prominently associated with the foreign trade of Japan; Mr. N. Hatsui, well known in Japanese banking circles, and Mr. G. Takabe, also widely known in legal circles. The phenomenal success achieved by Mr. G. Katsuda, special advisor to the company, is dealt with in one of the most interesting notices of this Kobé Shipping Section.

The Ocean Transport Co., Ltd., maintains regular freight services over the following routes: JAPAN-PACIFIC SERVICE, Kobé and Yokohama to Seattle, two to three steamers monthly; Kobé and Yokohama to San Francisco, one steamer monthly. CHINA-PACIFIC SERVICE, from Dairen, calling at Tientsin, Chin-Wang-Tao, Hongkong, and Manila, to Seattle and San Francisco, one steamer



KOBÉ OFFICES OF KABUSHIKI KAISHA SHOSHO YOKO

monthly. SINGAPORE-PACIFIC SERVICE, from Singapore to Seattle and San Francisco, three or four steamers monthly. CALCUTTA-CEYLON-PACIFIC SERVICE, from Calcutta and Colombo to Seattle and San Francisco, one steamer monthly. The company carries freight only, and is unique inasmuch that it is practically the only concern thus operating.

The Managing Directors are Messrs. T. Ishida and T. Hirota, both of whom are well known experts in the marine transportation business, having had many years' experience abroad.

THE SOUTH SEA MAIL STEAMSHIP CO., LIMITED (NANYO YUSEN KAISHA, LTD.)

This company was founded in October, 1912, consequently the founders claim for themselves a place amongst those keen business men who foresaw the future maritime greatness of Japan in the normal times prior to the war. The founders of the company, Messrs. K. Oaki, M. Itaya, R. Matsumoto, S. Saiki, and the late J. Harada, Esq., still constitute the Board of Directors, of course with the exception of Mr. J. Harada, whose place has been taken by his son, Mr. R. Harada, as President of the enterprise. The

capital of the company is Yen 1,500,000, the interest on which is guaranteed by Government subsidy, though the following steamers owned by them represent a far larger sum: S. S. *Rio jun Maru* (G. T., 4,731), S. S. *Borneo Maru* (G. T., 3,916), S. S. *Banri Maru* (G. T., 3,247), and the S. S. *Hokuto Maru* (G. T., 3,046).

A regular three weekly freight and passenger service is maintained between Japan and the Dutch East Indian ports. On the outward voyage the steamers leave Kobé for Sourabaya, *via* Moji, Hongkong, Batavia, and Semarang, and homeward bound from Semarang to Yokohama, call at Macassar, Balikpapan, Hongkong, Moji, and Kobé.

The South Sea Mail Steamship Co., Ltd., is excellently represented at all ports of call by the following well known houses: Yamagataya Kaisoten, Yokohama; Oguri Goshi Kaisha, Moji; Dodwell & Co., Ltd., Hongkong; MacLaine, Watson & Co., Batavia; Fraser, Eaton & Co., Sourabaya; McNeill & Co., Semarang; Michael Stephens & Co., Macassar, and the Bataafsehe Petroleum Maatschappij at Balikpapan.

The Managing Director is Mr. R. Matsumoto, and the General Manager is Mr. S. Saiki.

MITSUBISHI GOSHI KAISHA, SHIPPING BUREAU (KOBÉ)

THE history of this great enterprise, long since internationally famous, and what it has done to aid in Japan's great struggle for commercial and industrial recognition, is dealt with in the Tokyo section of this book. Although the Mitsubishi has extensively operated a large fleet of its own steamers for a number of years, it is only recently (October, 1916) that it was found necessary to open the above Bureau.

Eighteen of the company's own steamers, a total tonnage of 30,649, are under the direct management of the Bureau, with an additional fifteen chartered vessels, bringing the grand total tonnage up to 56,991. The whole fleet is engaged in the transportation of coal, general cargo, and iron ore, from Tayeh, China, to the Government iron foundry at Yamata, Kyushu. Various vessels of the fleet have been specially constructed for the ore-carrying trade, a good example of which is the *Malsura Maru*, shown in the accompanying illustration in the process of unloading with powerful cranes at Yamata Quay.



KOBÉ OFFICES OF THE OCEAN TRANSPORT CO., LTD.

The Kobé premises, also shown in the illustration, cover a considerable area, and are housed in one of the finest buildings in the port.

The following list of steamers owned by the company, ranging from 1,000 to 4,000 tons, will give a comprehensive impression of the important manner in which the shipping business has developed:

Tomiura Maru, Matsura Maru, Fukura Maru, Daiya Maru, Wakamatsu Maru, Toyora Maru, Katsura Maru, Ichiro Maru, Nagaura Maru, Yenoura Maru, Yoshiura Maru, Iitaka Maru, Jiro Maru, Saburo Maru, Shiro Maru, Goro Maru, Rokuro Maru, Hichiro Maru.

THE JAPAN MARINE ENGINEERING & SALVAGE CO., LIMITED

WITH the great rise in the shipping industry of Japan it is natural to expect to find an organisation on modern lines for the salvaging of ships that experience serious trouble, and such a concern exists in the Nippon Kaiji Kogyo Kabushiki Kaisha, or Japan Marine Engineering & Salvage Co., Ltd. This company was established through the efforts of Captain T. Chiura, one of the

most experienced shipping men in Japan. Captain Chiura was for over nineteen years in the service of the Nippon Yusen Kaisha and the Osaka Shosen Kaisha in the capacity of Marine Superintendent. He realised the necessity for a strong salvage corporation to take care of the vastly increased volume of shipping in Japanese waters, and it was by his efforts that the company of which he is now the Managing Director was organised. There were, of course, salvage companies before that time, but the shipping interests and underwriters were in general agreement that there was need for an amalgamation and strengthening of the salvage plants available. Captain Chiura succeeded in combining the plants of the Messrs. S. Matsuda, R. Yamashina, and the Salvage Department of the Mitsubishi Company. Mr. Matsuda had been engaged in the business with three salvage vessels and six crews of men since 1906. Mr. Yamashina's outfit comprised three vessels and seven crews, and had originated as far back as 1883. The Mitsubishi Salvage Department comprised two steamers and crews. By this combination the Japan Marine Engineering & Salvage Co., Ltd., secured a good workable plant and a

large number of experienced officers and men. The company was formed with a capital of Yen 5,000,000, of which Yen 2,000,000 has been paid up. The principal shareholders are the Nippon Yusen Kaisha, Osaka Shosen Kaisha, Toyo Kisen Kaisha, Nisshin Kisen Kaisha, and several other well known companies and private ship-owners, as well as such representative underwriting concerns as the Kobé Marine Transport and Fire Insurance Co., Ltd., Tokyo Marine Insurance Co., Ltd., Osaka Marine and Fire Insurance Co., Ltd., and the Imperial Marine Transport and Fire Insurance Co., Ltd.

The Japan Marine Engineering & Salvage Co., Ltd., has eight salvage ships, ranging from the *Oura Maru*, a vessel of 672 tons gross, and 12 knots speed, fitted with wireless, and rated 100 A. 1. at Lloyds, down to the *Hiei Maru* of 126 tons gross. There are 230 sets of French diving apparatus, and 54 sets of English, and the ships are fitted with all other necessary appliances and plant, such as high-powered centrifugal, steam and oil driven pumps, lighters, anchors, cable, etc. The employees of the company include about 40 engineers, 116 divers, 20 diving carpenters,



MITSUBISHI GOSHI KAISHA SHIPPING BUREAU, KOBÉ: SHIPPING BUREAU AND BANKING PREMISES AT KOBÉ—"MATSURA MARU," TYPE OF
 SPECIAL MITSUBISHI ORE FREIGHTER—S. S. "TOMIURA MARU," TYPE OF CARGO VESSEL



SOUTH SEA MAIL STEAMSHIP CO., LTD. (NANYO YUSEN KAISHA, LTD.): BUILDING IN WHICH THE COMPANY'S OFFICES ARE LOCATED—
TYPE OF VESSEL OWNED BY THE COMPANY

80 diving smiths, and 300 riggers and workmen, all of long experience in their work.

Of course, the best testimony to the capacity of such a company is the work it has already carried out, and in this connection the Japan Marine Engineering & Salvage Co., Ltd., can claim a brilliant record. It has worked on such big salvage jobs as the S. S. *Minnesota*, 20,718 tons, the S. S. *Dakota*, of similar tonnage, the S. S. *Empress of China*, the S. S. *Tellus*, the *Haddon Hall*, *Clunny Castle*, and *Saxonia*, besides a score of other undertakings, some of tremendous difficulty.

The head office of the company is at Yedobori Kamidori, Nishi-ku, Osaka. There are branches at Tokyo, Moji, Hakodate, and Otaru, and the company has as agents the Osaka Shosen Kaisha at Hongkong, the Nisshin Kisen Kaisha at Shanghai, the Mitsubishi Company, London Branch, at London, and the Goko Shokai at Kobé. Captain Chiura and his expert staff are ready to undertake any salvage or marine work that falls within the scope of the company.

The telegraphic address is "Salvage," Osaka, and the codes, A. B. C. 5th Edition, and Bentley's.

SHIPPING AND WAREHOUSE COMPANIES, ETC.

THE KOBÉ PIER COMPANY, LIMITED

THE Kobé Sanbashi Kabushiki Kaisha, or Kobé Pier Company, Ltd., was established in 1884, and may fairly claim to be one of the pioneers and present-day leaders in the business of shipping, towing, transporting, stevedoring, and similar work in the ports of Kobé and Osaka. As the name implies the company is also interested in the construction and management of wharves and piers, though at present its main business is otherwise. It must be admitted, however, that the early work done by the company was a decided factor in the development of the trade of the Port of Kobé. Shortly after its

establishment the Kobé Sanbashi Kaisha constructed a pier to facilitate the mooring of steamers, and the loading and discharging of cargoes. In 1909 this pier was purchased by the Government, but the pier and adjacent embankments and other facilities installed by the company still remained at the service of the shipping interests. In the same year the company purchased the Kyodo Hikifune Kaisha (Union Tug-boat Co.) and set out on a new record of activity in the towage business. Since then the transportation of cargoes between Kobé and Osaka, as well as the tug-boat and coal lighterage business between Wakamatsu, Kobé, and Osaka, have been started and the business has developed to a very large extent. Branches were established at several places in the meantime, and with a view to conducting the business of general marine transportation, stevedoring, and export and import in Shanghai, a new company was established under the control of the Kobé Pier Co., entitled the Shanghai Transportation Company, Ltd., which now



NIPPON KAIJI KOGYO KABUSHIKI KAISHA (JAPAN MARINE ENGINEERING & SALVAGE CO., LTD.): SALVAGE STEAMER "OURA MARU"
— HEAD OFFICE AT OSAKA

owns a fleet of 5 tug-boats and 40 lighters aggregating 8,000 tons.

In 1915 the Kobé Pier Company, Ltd., started in the shipping business, and now has a tonnage of 25,000, including the vessels now under construction. The capital of this company is Yen 6,000,000. The principal officials are: Directors, Messrs. S. Nango (President), K. Yoshida, I. Kohdzo, and R. Godai; Auditors, Messrs. R. Kobayashi and I. Tanaka. Mr. K. Matsukata is acting as adviser to the company. Included in the fleet of the company are five steamers of a total of 16,000 tons, and two vessels of 4,500 tons deadweight capacity are under construction. There are 560 lighters of a capacity in all of 45,000 tons, 22 steam tug-boats, and one motor boat. The head office of the Kobé Pier Company, Ltd., is at No. 16, Kano-cho, Rokuchome, Kobé, and the branches are at Osaka and Shanghai, while despatch offices are maintained at Takasago, Wakamatsu, and Tsingtao. The company's shipbuilding yard and repair works are at Osaka.

THE TOKIO WAREHOUSE COMPANY, LIMITED

THE excellent wharfage and cargo storage accommodation at Kobé provided by the Tokio Warehouse Company, Limited, is well known to foreign shipmasters and consignees, and it is doubtful whether better facilities, provided by private enterprise, are to be found anywhere in the East. This company, known under its Japanese title as the Tokio Soko Kaisha, is one of the subsidiary concerns of the great Mitsubishi Company. As a joint-stock company it was floated in 1887 in Tokyo. Business expanded year by year in keeping with the development of Japan's overseas trade, and branches were opened, with the necessary works, at Osaka and Hyogo. In 1896 the Mitsu Bishi family took up the whole of the stock in the company and carried out further extensions of the company's storage capacity, completing and improving warehouses and dock sheds, and generally reforming the business methods of the concern. The development of the business of the Tokio Soko Kaisha has been most marked at Kobé, since the purchase of the properties of the Nihon Trade Warehouse Company, and the starting of the Kobé branch office. In 1907 the company increased its capital fourfold, making the total Yen 2,000,000, and then commenced new lines of activity such as stevedoring, acting as landing and shipping agents, and customs brokers, in addition to the main business of warehousing and storing. Under contract with the Japan Cotton Merchants' Association, the Tokio Soko Kaisha constructed

transit sheds, godowns, and a steel pier in the southwestern part of Kobé (Wada Compound), for landing and assorting cotton imported to the port from various parts of the world. In 1914 the company completed the work of reclaiming 12 acres of land, and installing the new area with quays, railways, transit sheds, godowns, etc. This new site is in the centre of the harbour, the most convenient situation for transporting imports and exports, and for assorting general import cargoes. The Kobé branch of the company has under its direction four landing and warehousing premises in the harbour, *viz.*, Takahama, Wada, Onohama, and Shimakami.

The Takahama Compound has an area of 25 acres, with a water frontage of 2,544 feet and a quayage of 2,082 feet. The depth alongside the wharves at low tide is 27 feet. Transit sheds occupy 7 acres and the warehouses (bond and free) cover 7.8 acres. There are 5.32 miles of railway track, eight 3-ton electric cranes, one 15-ton fixed crane, two 3-ton steam cranes, and two 3-ton floating cranes. The quay will accommodate three steamers of the 10,000-ton class at the same time. The railways are built throughout the length and breadth of the compound, and join with the Imperial Government railways in the Kobé compound, and so directly communicate to all parts of the country from the ship's side.

The Wada Compound has an area of 16.5 acres, and a water frontage of 1,896 feet. There is a steel pier, 600 feet long, 63 feet wide, and with a depth of water at low tide of 26 feet. The transit sheds cover 5.5 acres and the warehouses 7 acres. There are 5.6 miles of railway and 16 1½-ton electric cranes. The steel pier will accommodate vessels of the 8,000-ton class on both sides at the same time. The railways combine with the Government lines in the Wada Compound, and offer the same facilities for transportation of cargoes to any part of the country as in the case of the Takahama Compound. In the Shimakami Compound there are warehouses covering five acres and sheds covering two acres. These warehouses are situated close to the Hyogo rice and manure markets, and so are very convenient for the storage of rice, cereals, corn-cake, etc. The Onohama Compound has bond and free warehouses covering 2.4 acres. They are situated in the eastern part of the city, close to the Kobé Customs Compound, and convenient for the storage of import cargo cleared from customs and awaiting transaction.

The Kobé branch of the Tokio Soko Kaisha has provided a fleet of steamboats and barges to facilitate its landing, shipping, and general stevedoring business. There

are twelve steamboats, of a total tonnage of 400, available for the carriage of passengers or for towage of barges. The barges number 120 and have a capacity of 10,000 tons. In expediting stevedoring and general shipping business in principal ports in coöperation with work at Kobé, the company has stevedoring departments at Yokohama and Moji. The head office of the company is at No. 7 Komatsucho, Fukagawaku, Tokyo.

MORIMOTO GOMEI KAISHA

IN a big commercial centre like Kobé, where the import and export trade is continually on the increase, and firms and companies engaged in the trade are always in search of suitable premises for offices and warehouses, it is to be expected that there should be some organisation handling the leasing of godowns, etc. This is the business of Morimoto Gomei Kaisha, a firm that has established a big business in the direction indicated, and which has achieved a high reputation throughout commercial circles for the capable manner in which it provides for the needs of the importers and exporters, both foreign and Japanese. The business was originally founded by the late Mr. Rokubei Morimoto, in December, 1900, at which time only a few properties were handled. Since then the business has extended to a substantial degree, as may be gathered from the fact that to-day the Morimoto Gomei Kaisha has under its control over 210 substantial brick buildings, besides land and other properties suitable for compounds, godowns, and offices. The area leased totals 13,000 *tsubo*. Godowns are situated at 1st, 2nd, and 3rd streets, Isogamidori; at 1st, 2nd, and 3rd streets, Hamabedori; at 2nd street, Yawatadori; at 6th street, Kanomachi, and elsewhere, all occupying advantageous business sites in the best parts of Kobé. The firm attends to the leasing and management of properties and all other classes of business associated with real estate interests.

The Morimoto Gomei Kaisha has a capital of Yen 1,000,000, and the principal officers are Messrs. Ginjiro Morimoto, Representative Partner, and Yoshimatsu Umeda, Managing Partner. The head office of the firm is at No. 23 Motomachi-dori, Ichome, Kobé.

Y. SATO & CO.

THE Goshi Kaisha Sato Shoten, or Messrs. Y. Sato & Co., was established in the year 1890 by Mr. Yutaro Sato, who is still the principal of the firm. Mr. Sato has had a lengthy experience of the shipping business, and is regarded as one of the best informed men regarding the growth of Kobé as a shipping centre. He was the first shipping



KOBÉ SANBASHI KABUSHIKI KAISHA, LTD. (KOBÉ PIER CO., LTD.): THE COMPANY'S FINE OFFICE PREMISES AT KOBÉ —
S. S. "FUKU MARU"—A FEW OF THE COMPANY'S NUMEROUS TUGS AND LIGHTERS



TOKIO WAREHOUSE CO., LTD.: VIEW OF TAKAHAMA WHARF AT KOBÉ — INTERIOR OF WADA WAREHOUSE, MITSUBISHI CO., KOBÉ —
VIEW OF THE TAKAHAMA GENERAL GODOWNS AT KOBÉ — THE WADA COTTON GODOWNS AT KOBÉ

broker to establish such a business in Japan, and has been remarkably successful in the transaction of a large volume of business involving the chartering and handling of steamers, freight brokerage, and general agency work. It is also interesting to note that a great number of the wealthy ship-brokers and ship-owners of Japan gained their experience in Mr. Sato's office, which was the training school for so many men who form the principal members of the shipping circle of Kōbē to-day.

Messrs. Y. Sato & Co. have widespread foreign connections, and they represent some of the largest Japanese shipping interests in the capacity of intermediaries for charters, insurance, and so forth. A special feature of the firm's operations is the confidence which has been developed with foreign concerns, as well as with Japanese companies. The head office of Y. Sato & Co. is at No. 26 Naniwa-cho, Kōbē.

THE YAMAGUCHI GOMEI KAISHA

MR. TAKESHI YAMAGUCHI, director of the Yamaguchi Gomei Kaisha, which transacts a widespread business in land and sea transportation, has done a great deal to improve

conditions in this business, and to provide conveniences for the rapid and economic carriage of goods from one part of the country to another. It is a business in which he has had a very lengthy experience, not only in Japan, but in Manchuria and China. Mr. Yamaguchi originally formed the Nippon Teigyo Kaisha, or Japan Transport Co., in April, 1896, at a time when little or nothing was being done by forwarding agents, and the services of this system were a great boon to the many consignors of small cargoes throughout the country, and around the coasts. Later on Mr. Yamaguchi founded the Nippon Unso Co., Ltd., in Tokyo, and this business is now running and yielding a fair profit annually.

The Yamaguchi Gomei Kaisha operate as customs brokers, shipping, landing, and forwarding agents. The organisation was formed in 1909 by altering the organisation of the Yamaguchi Unsoten (Yamaguchi Transport Agency), which had previously been a private concern. This agency was first established in 1893, and under Mr. Yamaguchi's personal attention developed into a very large business. The head office was in Kōbē, with a branch at Osaka. Many

despatch offices were started in Kōbē and Osaka and elsewhere, and agents were appointed in the principal business centres of Japan. In 1906 the same business was entered upon in South Manchuria, with headquarters at Dairen, and later on despatch offices were placed in Yingkiao, Mukden, Tieling, Kaiyuen Shih-ping-hai, Kungchuling, Changchun, Harbin, and elsewhere. Agents were appointed at each station along the South Manchuria Railway, and thus the Yamaguchi Transport Agency established transport facilities, not only throughout Japan, but in Korea, Manchuria, China, and Russia, always doing a big business and materially helping the development of the local and foreign trade. At the same time the agency opened up a service by coastal steamers all along the China Coast, and a forwarding branch for the despatch of goods to foreign countries. Consequently, when the private concern was turned into a joint-capital company, the Yamaguchi Gomei Kaisha had a well organised business, and it must be admitted that it has lost no opportunity of extending it. Connections have been formed in Tientsin, Tsingtao, Shanghai, Hongkong, and Hankow. Busi-



EXTENSIVE KōBÉ GODOWNS OF THE MORIMOTO GOMEI KAISHA



THE KOBÉ PREMISES AND OFFICE OF SATO SHOTEN (Y. SATO & CO.)



YAMAGUCHI & CO.: THE KOBÉ PREMISES — THE DAIREN BRANCH

ness has also been extended to the South Sea Islands, the Straits Settlements, India, and North and South America. Further extensions are now contemplated.

The Directors of the Yamaguchi Gomei Kaisha are: Messrs. K. Yamaguchi (President), T. Yamaguchi, H. Yamaguchi (Master of Laws), and H. Yamaguchi. The head office of the company is at Sakaecho, 3rd Street, Kobé, and branch offices are at Tomijimacho, Osaka, at Kambudori, 1st Street, Dairen, and East 2nd district, Changchun.

MIKAMI & CO.

THIS firm was established by Mr. T. Mikami, at Kobé, in 1890, and has won an excellent reputation throughout Japan and abroad for the sound and progressive conduct of its widely varied and important business. Mr. Mikami himself is noted for his broad vision. He has not been satisfied to confine his business interests solely to Japan, or to one restricted line of activity,

but has launched out on many enterprises, all of which have been substantially and successfully developed. The firm's business is conducted through three departments, *viz.*: (A) Shipping Department, (B) Ship-broking Department, and (C) Estate and Mining Department. Messrs. Mikami & Co. own and control a number of ships, and the direction of this phase of their operations rests with "A Department." In "Department B," which constitutes the main business of the firm, all classes of freight, shipping, and other brokerage associated with the mercantile marine is transacted. This department is splendidly organised, and Mikami & Co. are particularly well known throughout the entire business community for the trustworthiness and despatch with which their commissions are executed. The third department governs all the mining, farming, and general agricultural interests with which the firm is associated. Mr. Mikami is largely concerned with such enterprises, in which he has invested to a con-

siderable extent. The firm largely controls the Kankow Mining Company, the Koyanose Coal Company, the Fukuho Agricultural Enterprise Company, which holds considerable pasturage properties in Hokkaido and Korea, the Tokiwa Gold Mining Company and the Daido Antimony Company, in China. Mr. Mikami's interests in China have been built up through his earnest endeavours to promote the most intimate relationship between Japan and China, financially and economically. He is well known as an old friend of the Chinese National Party, the powerful revolutionary party governed by Dr. Sun yat Sen, ex-President of China.

Originally the capital of the firm was only Yen 5,000. To-day it is Yen 300,000. No change has taken place in the constitution of the business, which is still that of a joint-stock concern. The President and principal of the business is Mr. Toyotsune Mikami, whose co-directors are Dr. S. Mikami (Doctor of Laws) and Dr. T. Ito (Doctor of

Agriculture). These two gentlemen are well qualified to administer the diversified business and special undertakings of the firm. The General Manager for Messrs. Mikami & Co. is Mr. S. Nishikawa. Messrs. Mikami

They also have correspondents in all the ports of South China, in Vladivostok, Singapore, Seattle, San Francisco, New York, Le Havre, Calais, Amsterdam, Rotterdam, Venice, Genoa, Sydney, Melbourne,

into, and one result was the formation of the Tomijima Gumi (Transportation) Company, an offspring of the Osaka Shosen Kaisha, designed to take care of the handling of cargoes by land. For many years this concern was conducted as an ordinary trade association, but in August, 1907, when it also went in for lighter and tug-boat operations in connection with shipping, and for this purpose purchased the tugs and lighters of the Osaka Shosen Kaisha, it was capitalised as a company, and entered upon a new and separate existence from the parent concern. In March, 1909, the Tomijima Gumi Company entered into an arrangement with the Railway Department under which cargoes can be handled over the Government lines between the interior and Hokkaido, *via* Fushiki. Other expansions of the company's service were regularly made, and to-day its system covers the whole of Japan. The Tomijima Gumi was registered as a limited liability company in May, 1916, and its capital was raised to Yen 1,000,000. Generally speaking, the history of the company has been one of prosperity and steady growth. To-day there are 14 despatch offices in Osaka, a branch in Kobé, and three despatch offices in Hyogo, as well as in other centres of traffic. There is also a detached department of the service under the direction of Messrs. Lever Bros. of Amagasaki. The main business of the Tomijima (Transportation Co.), Ltd., consists of shipping and discharging exports and imports, transporting cargoes by lighter and by rail, handling Imperial Army freight of various kinds, besides acting as Customs clearance agents, tugging lighters between Osaka and Kobé, transportation by connecting ships and railways with the main ports, and handling Customs papers. Cargoes handled by the head and branch offices reach the large total of 3,570,000 tons every half-year on an average. About 3,000 labourers are employed, and the company owns over 300 carts, wagons, motor trucks, etc., for land transportation, and about 500 lighters and ten steamboats. The President of the company is Mr. T. Inouye, and the Managing Director is Mr. K. Kohno, who is in direct control of the operations. The head office is at No. 60 Tomijimacho, Kita-ku, Osaka. At the close of the half-year ended June 30, 1917, the assets of this enterprising concern were valued at Yen 1,292,409. The profits for the half-year were Yen 60,458. After adding Yen 8,000 to the reserves, and paying an ordinary and a special bonus amounting to Yen 15,500, a dividend of 15 per cent per annum was declared. As stated, the capital of the Tomijima Gumi, Ltd., is Yen 1,000,000, of which Yen 500,000 has been paid up.



NEW PREMISES OF MIKAMI & CO.

& Co. have their head office at No. 8 Sanchome, Kaigan Dori, Kobé, where the firm owns a modern three-story brick building. Branches are established at Osaka, Tokyo, and London. The firm is also widely represented abroad. Their agents in the United Kingdom are Messrs. T. G. Beatley & Son, 57, 58 Leadenhall Street, London, E. C. In Paris they are represented by Messrs. Beatley et Fils, 8 Rue Halévy de l'Opéra.

and other centres of shipping and commercial importance.

THE TOMIJIMA GUMI (TRANSPORTATION CO.), LIMITED

THE first big development of the mercantile marine of Japan took place in 1884, at which time the Osaka Shosen Kaisha was formed among a large number of individual ship-owners. At that period the whole question of transportation by sea and land was gone



THE HEAD OFFICE OF THE TOMIJIMA GUMI, LTD., OSAKA



THE WAY TO NAKASENDO

XLIII. OTHER IMPORTANT TOWNS OF JAPAN

THE CITY OF WAKAYAMA—THE CITY OF NIIGATA—THE CITY OF SENDAI—
THE CITY OF KANAZAWA—THE CITY OF HIROSHIMA

THE CITY OF WAKAYAMA

WAKAYAMA is another of those old cities of which Japan has so many, the origin of which dates back to the remote ages of antiquity. The place first comes into prominence in Japanese annals when the priests of the Negoroji Temple, in the Province of Kii, united with the lord of Ota Castle in a scheme to attack the Castle of Osaka. On learning of the plot Hideyoshi, then in supreme power at Kyoto, indignant at this treachery, despatched troops under Hidenaga Hashiba to defeat the machinations of the priests. This was in the year 1584. The army of Hideyoshi poured into Kishu in great force, destroyed the Negoro Temple by fire, and then proceeded to sack Ota Castle.

The rebellion being completely crushed, Hideyoshi himself paid a visit to the scene of decimation, and ordered a still greater castle to be erected on the site, naming the place Wakayama and making his son its first lord. This is the origin of the present Wakayama Castle, which when first erected, soon gathered about it an increasing population, causing a large city to rise. Thus Hideyoshi may be regarded as the real founder of Wakayama, as before his time the place amounted to no more than a small village.

In the year 1600 Asano Yukinaga became lord of Wakayama Castle, increasing its proportions and greatly strengthening its battlements. Not long afterwards he was succeeded by his younger brother, Nagahira, and he in turn by the lord of Hiroshima, in 1619, as the tenth son of Ieyasu, Tokugawa

Yorinobu, had taken his former fief. He founded the third of the great Tokugawa families, making Wakayama his castle town, and having it thoroughly rebuilt with the consent of the shogun. As the family held very exalted rank, being one of the three entitled to succeed to the shogunate, the castle was spared the demolition suffered by many others at the time of the Restoration. The strategic position of the city appealed to the Tokugawa authorities, who well knew the advantage of having there a daimyo likely to keep a sharp eye on the lords of Shikoku and Kyushu. Wakayama has now passed from the dignity of being the castle town of Kishu to that of the capital of the prefecture of Wakayama, being the fifteenth city of the Empire, with a population of about 80,000 people.

The city of Wakayama is pleasantly situated facing the sea, with the Nagaminé Hill rising to the south, and the north being bounded by the province of Idzumi. North of the city runs the River Kino on its way to the sea, while eastward extends a wide plain to the beach. The city is thus quite conveniently situated for communication both by sea and land, with adequate steamship and railway connections. Among the principal buildings of Wakayama are the prefectural offices, the local law court, and the headquarters of the 32nd Army Brigade. The city has ten primary schools, a municipal commercial school, a girls' art school, one normal training college, one middle school, one girls' high school, a technical school, and a public library. Wakayama has its mayor and municipal council, like other cities, an excellent system of city government being maintained. The revenue of the municipality amounts to about 220,000 yen annually, which is usually sufficient for the city's expenses. The large number of old samurai families residing in Wakayama makes it a typical Japanese city and an attractive residential centre.

The chief interests of Wakayama, however, are industrial and commercial, the centre of greatest activity being toward the northern section of the city. The largest product of the place is cotton flannel, the annual output of which is valued at 10,000,000 yen. As the daimyo of Kishu was the first of the barons to equip his troops with foreign uniforms and weapons, the place became a centre for weaving material for army clothes, which, as wool was not to be had, were made of a coarse cotton duck; and it was a Wakayama man, Major-General Tsuda, who first tried to produce real army cloth in Japan, though it resembled flannel more than the real article. When the feudal system was abolished and the hereditary pensions of the samurai were done away, some 7,000 of these warriors of Kishu found themselves masterless, and turned to the flannel mills of Major-General Tsuda for work to ensure them a livelihood. With imports of flannel from Italy, the cotton flannel industries of Wakayama were stimulated to keener competition, great improvements were inaugurated, several fine mills were established, and thus was created the present flourishing industry in Wakayama. It was soon followed by great cotton mills, which are now also a conspicuous feature of the city's numerous activities. The hosiery produced at Wakayama is among the best made in Japan, representing about 4,000,000 pairs of socks a year, valued at some 320,000 yen, and mostly exported through Osaka. Wakayama also produces wood finishings in

abundance, as the mountains of Kishu are noted for good timber. The annual value of such wood productions is about 410,000 yen. The timber is felled in the hills and floated down the River Kino to the city, where it is sawn and made up or shipped, the annual output being valued at 600,000 yen. There is also a large production of saké, totalling more than 1,000,000 yen annually in value, most of which is disposed of in Osaka, Kyoto, and Tokyo. Wakayama saké has a reputation for delicacy of flavour, due to the quality of the water procurable there for brewing. One of the most noted brewing firms of the city is Kumakusu Minamikata, whose name is well known abroad. It may be truly said that Wakayama is one of the most prosperous and industrious cities of its size in the whole Empire, having no less than 112 industrial corporations with a total capital of some 15,000,000 yen.

The three most alluring attractions of Wakayama to the traveller are the old castle of its former daimyo, the Kimii Temple, and the entrancing scenery at Waka-no-ura. The castle is situated on a picturesque site known as Torafusuzan, or "the mountain of the crouching tiger," its three-storied tower rising serenely among the lofty old trees of the precincts. Lying westward of the castle is Oka Park, its rocky sides suggesting former proximity to the coast. On its summit stands a monument to the men of Kishu who died in the wars of the Restoration, and the spot affords a magnificent view of the surrounding country. At the foot of the hill in the park is the Ho-on Temple where the wife of Tokugawa Yorinobu—a daughter of the celebrated hero, Kato Kiyomasa—lies buried. The Renshin Temple was erected by the mother of Yorinobu in 1609 and has examples of the handwriting of the lords of Kishu. Westward of the city may still be seen the two ancient pines marking the spot where the garrison of Ota Castle surrendered to the forces of Hideyoshi, and were saved by thirty-six brave officers and a general sacrificing their lives by committing *harakiri*. The Kimii Temple is about thirty minutes by electric tram from the city, being Number 2 of the thirty-three most holy places in Japan. It was founded by a Chinese missionary named Ikwan, in 770 A. D., the sacred edifice being erected to house an image of the goddess Kwannon found there. But to the average visitor it is the beautiful scenery of the environment that is the chief attraction, the view being typically Japanese and one that any artist would choose. From the height one gazes away across a charming labyrinth of land and water until the eye rests on another fair scene, known as Waka-

no-ura, a sandy peninsula, narrow and fantastically overgrown with pines and enclosing a little bay, of which poets have sung the praises from time immemorial. A walk along the coast from this point affords the most lovely views of land and sea.

THE CITY OF NIIGATA

NIIGATA, the capital of the prefecture of the same name, is situated on the west coast of Japan on a narrow, sandy strip of land between the River Shinano and the sea. It was one of the first ports in Japan opened to foreign trade and is still the busiest centre in the Province of Echigo, having convenient and regular railway communication with Tokyo, and steamship connection with the coast towns. In reaching the city from the railway one has to cross the Shinano River by the great Bandai Bridge, some 2,500 feet in length. Situated near the mouth of the river, Niigata faces the Sea of Japan, with extensive sand dunes protecting its western side. Thus strung along the coast, the streets running east and west are short, while those parallel with the beach are correspondingly long.

As Niigata is one of the largest ports on the coast of the Japan Sea, it was greatly favoured by the government of the shogunate and enjoyed commercial prosperity from very early days. When Lord Makino took up his residence there as head of the Echigo clan he built his castle at Nagaoka, but did all in his power to promote the commercial interests of Niigata, the citizens of which were exempted from taxation—with the hope of rapidly increasing the population—and under such encouragement the place experienced great development. Though the broad river and the great bridge which spans it were formerly regarded as picturesque advantages to the city of Niigata, they are to-day looked upon as prejudicial to its interests, as it is inconvenient to have to cross the bridge to connect with the railway, while the bridge itself, being constructed of wood, is too flimsy to be regarded as a permanent structure. In the old days the Shinano River was a highway for inland navigation, but in recent years it has become silted up and navigation is impossible. Dredging undertaken to relieve the situation has proved in vain, owing to the immense flow of sand from the upper reaches of the river.

In the early days it was supposed that Niigata would become the chief port for ships trading with Russia, but results in this direction have not come up to expectations, the route having been deflected to Tsuruga, farther south. Still, the city has numerous industrial and commercial activities

that make it an important centre of life in that part of the Empire. The city produces large quantities of sulphuric acid, lacquer ware, woven tissues, matting, umbrellas, and matches, to the value of nearly 1,000,000 yen annually. Exports are not large, as the harbour can not accommodate vessels very well, and they have to anchor in the roadstead outside. In case of high wind the coast is considered dangerous, and then ships have to take refuge in the harbour of Ebisu-minato, on the island of Sado, some distance away. It is evident from old maps that the site now occupied by Niigata was eight or ten miles out at sea 800 years ago, the whole surrounding plain having become dry land within historic time, partly by the silting up of rivers and partly by upheaval. The town has never attracted foreign trade, and the only foreigners now residing there are missionaries.

Owing to the severe winters on this coast of Japan the snowfall is unusually heavy, and consequently the houses at Niigata are built differently from those in other regions of Japan, being for the most part covered with shingles instead of tiles, the shingles often having stones laid on them to prevent the fierce winds tearing them off. The houses are low, with gable ends toward the street, and the roofs prolonged beyond the walls to keep the snow from blocking up the windows and from rendering the sidewalks impassable. One frequently sees photographs from Niigata showing how the people there dig themselves out after a big snowstorm by tunnelling through the snow. As the soil is so sandy the willow is the only tree that thrives well in the city, but the town is intersected by streams and canals necessitating numerous bridges, which add to its picturesqueness. As the banks of the rivers and canals are lined with willow trees, the place is known as "the City of Willows," in which respect Niigata somewhat resembles Osaka.

Niigata carries on important public works, especially of a riparian nature, and has good educational facilities, possessing seven primary schools, one middle school, and one girls' high school, besides a commercial school and a medical college. The prefectural reformatory is also situated there and an orphanage, as well as a school for the blind and deaf. The finest buildings are those of the Prefectural Office and the Department of Communications. The Hakusan Garden to the south of the city has many fine old pine trees surrounding a shrine of the same name, and by ascending the hill one has a charming view of the plain on one side and the mountains on the other. This outlook was admired greatly by the late Emperor

of Japan, who once visited the park. The sailors of Niigata have a song which they sing on approaching the port, to the effect that the heart of the sailor lad is always elated as he sees the pines of Hakusan rising through the mists of dawn, reminding him of happy days under their shade with friends of now or long ago. On the summit of Hiyoriyama is an observation tower used by shipping agents in the old days to see when their vessels were approaching the harbour, and the place now affords an excellent view of the plains and the sea, with Sado Island rising like a purple gem from the distant ocean.

In modern times Niigata is said to be more renowned for its beautiful women than for any other specialty. The long bracing winters there are said to so modify the effect of the sun as to produce a peculiar complexion, which the Japanese admire as white and delicate; and this delicacy of complexion, combined with a certain curve of the neck, distinguishes the Niigata woman in a way that gives her an advantage over all her sisters in Japan. This is why the Niigata girls are the most noted among the Tokyo *geisha*, and for the same reason the people of Niigata are reputed to be unique among Japanese in preferring a family of girls to one of boys. In strange contrast to the peculiar beauty of the women of Niigata is the uses to which they are put as manual labourers, being made hewers of wood and drawers of water to the community. It is quite a common sight in Niigata to see women pulling a cart-load of goods along the street. And the women of Niigata are given names quite different from those used in other parts of Japan, where female names are usually those of pretty flowers or objects in nature, as "Miss Flower," "Miss Love," "Miss Snow," "Miss Pine," and so on. The Niigata belles are called by such names as "Miss Chin," "Miss Rita," "Miss Sase," or "Miss Oso," which have a ludicrous sound in other parts of Japan. Niigata is famous for its oysters, which one can have served even in summer.

THE CITY OF SENDAI

SENDAI, the largest city of northern Japan, some 12 hours by train from Tokyo, lies on a level plain at the foot of Mount Aoba, from the green slopes of which one looks out on the Pacific. The origin of the city is lost in the mists of antiquity. It is believed, however, that the place began to assume a position of importance when the Emperor Keitai had a fortress erected on Mount Aoba in 507 A. D., and when the Emperor Yomei had a thousand Buddhist

images (*Sentai*) set up in the place in 586 A. D., the settlement took its present name. Tradition has it that originally the site was a marshy plain overgrown with reeds, stretching between the foot-hills and the River Hirose, a stream that now meanders through the city, and it is probable that the first settlement of any importance was a garrison of the castle, placed there as an outpost to prevent incursions of the savage Ainu. When Yoritomo undertook to suppress the Fujiwara family in the northern districts he gave Sendai to a daimyo named Chiba, who built a grand mansion on Mount Aoba and made Sendai his castle town. Later, especially during the age of the civil wars, Daté Masamuné, the scion of another powerful family, rose and brought under his sway the whole of the region; and at the beginning of the Tokugawa period in the seventeenth century the Daté family moved their headquarters to Sendai, when the town was remodelled and became the greatest city of the north, with more than three hundred households and as many shrines and temples.

The Daté family did everything possible to make their new capital a place of commercial and industrial importance, issuing special regulations for the protection and encouragement of trade, the merchants of Sendai being allowed to bring their goods direct from Osaka and Yedo, while the traders of other towns in the fief had to suffer inconvenient restrictions in buying everything from the wholesale dealers of the castle town. Naturally this caused trade to centre in the daimyo's capital, as it was the only source of merchandise. In return, the merchants of Sendai had to keep up the streets, with first-class shops fronting on them, where all kinds of wares could be bought, so as to supply the necessities of the people of the town and of the surrounding districts. Moreover, as a castle town, the place was visited by increasing numbers of people and assumed an air of considerable importance.

With the Restoration of Imperial Government came the fall of the Sendai clan, and the castle town of the Daté family began to show signs of decline. The Sendai clan naturally revolted against the attitude of Choshu and Satsuma toward the Tokugawa house, as these southern daimyos had been historic enemies of the Daté family. The northern clan was, however, finally forced into submission, but, as a matter of course, none of its friends were allowed to enter the public services, at least not for some years. The traders of Sendai, thus deprived of the assistance and patronage of the clan government, had to shift for themselves, and a fierce struggle for existence followed. The city gradually declined in commercial

importance, and the products of the place were limited to a few efforts in handicraft, such as dyed articles of domestic make, earthenware, lacquer ware, writing brushes, and bamboo goods, amounting to no more than some four and a half million yen annually. In 1879 the number of houses in Sendai was only 11,500, the exact number of the population being unknown, but to-day the number of houses has increased to more than 21,000 and the population is well over 100,000 — so that a period of revival and prosperity has apparently set in.

Sendai, however, is regarded as a more important town politically and in a military sense, than in the way of commerce and industry. It is the seat of the Prefectural Office, the Sendai Court of Appeal, the Administration Office of Communications for the northern department of the service, and is the headquarters of the Second Army Division. Educationally, too, Sendai is a much more important centre than even some larger towns, as it is the seat of the Imperial University of the North-West, with its colleges of Science, Engineering, and Medicine, and also of the Second National College. Among the important mission colleges there is the Tohoku Gakuin.

As a centre of historical and topographical interest Sendai has large claims to the interest of the observant and the thoughtful. Crossing the big bridge, over 360 feet long, which spans the Hirosé River, one wanders westward over an ascending road to the main gate of Sendai Castle, now occupied as the headquarters of the Second Army Division. The magnificent main gate is about the only remnant of the ancient castle that is left, as the first governor of the place, after the fall of the Tokugawa shogun, was so indignant at the opposition of the Sendai clan that he had the old castle razed to the ground, and what may have survived his wrath was destroyed by fire in 1882. It is said that the present main gateway was formerly the entrance to Hideyoshi's mansion at Nagoya when he was commander of the expedition sent to Korea, and that Daté Masamuné obtained it and had it conveyed to his capital in the north to be set up as the main gate of his castle. It still has its golden chrysanthemum crests of twenty petals and its paulownia leaves, the crest of the Tokugawa clan. On the site where once stood the central tower of the castle there is a monument in commemoration of the soldiers who fell in the war with China. The monument rises to a height of 67 feet, and on the top is a bronze kite measuring 22 feet between the tips of its wings.

The ancestral sepulchre of the Daté family is at Zuihozan, on the summit of Kyogaminé

Hill, in the midst of beautiful pines and cedars. Within the shrine stands a statue of the famous daimyo, looking very grave in court dress. In former times the tomb, with its fine corridors, gate, and sanctuary, was as grand and imposing as the Tokugawa tombs at Nikko, but what with the mutilation of enemies and the neglect of friends, its splendour has mostly departed. The spot is still a centre of veneration and is visited by the folk of Sendai.

The plain of Miyagino, extending from the city toward the sea, is noted for its abundance of wild flowers and its singing insects, the fame of which has been recited in a thousand songs and poems. In the days of Sendai's glory the Daté family used to present annually to the shogun in Yedo a singing grasshopper from this famous plain of wild grass and blossoms. The plain is now being gradually absorbed by radish fields and drill grounds.

In a wood near Miyagino plain is the Yakusi Temple, which the Daté family had reconstructed on a magnificent scale, making it one of the most impressive sacred edifices of the Momoyama age. In a beautiful park of fine trees stands the Ozaki Hachiman shrine in honour of the god of war, where the carvings of the famous master of the chisel, Hida Jingoro, may still be seen. Another historic spot is Tsutsujigaoka Park, a hilly region not far from Sendai on the plain of Miyagino, where Yoritomo encamped when he came north to attack Fujiwara Yasuhiro with his 280,000 Kamakura warriors. At the end of the grounds now stands the barracks of the Fourth Infantry Regiment, with the local military preparatory school. Another park lies behind the Hirosé River in the western portion of the city, and has many pines and cherry trees, the elevation commanding a fine view of the city spread out below it.

With its many hills, trees, and streams Sendai is, on the whole, a pretty town, which, on account of its culture, is sometimes called "the Boston of Japan," as Kyoto, the old capital, is called "the Moscow of the Empire." In physical features and historical traditions there are few towns that can compare with Sendai, except, perhaps, Kanazawa, in Kaga; for there, as nowhere else, can one study well the departed glory of the Tokugawa *régime*. In addition to its historical interest, Sendai has in its vicinity the lovely Mutsu-shima, a sea of fairy-like islands, one of the three most beautiful spots in the Empire, with good hotels and every other accommodation to welcome the traveller who desires to see the fairest portions of the country.

THE CITY OF KANAZAWA

ONE of the most historic old cities of Japan, Kanazawa is the largest town in the province of Kaga and the capital of Ishikawa Prefecture. Built along the foothills of Mount Matsu with the Japan Sea in front and the rivers Sai and Asano flowing through the town, the site is an ideal one. The town is said to have derived its name from an incident of ancient times wherein a native of the district, on finding some alluvial gold, washed it in a pond near the feudal castle, after which it was called Kanea-raisawa, or "Gold-Washing-Swamp," which finally became "Kanazawa." The site of the present city has been occupied by the Kanazawa clan from the early part of the fourteenth century. By the year 1339 the village had over 1,000 houses and was called Yamazakimachi, or "Mountain-front-village." About this time a Buddhist temple was erected in the village and that religion became powerful enough to rise against and defeat the Togashi family in 1469, for religion had a very martial spirit in those days. The victory of the Hongwanji sect of Buddhism over its enemies won for it the admiration and support of the surrounding population. In 1488 defences were erected about the city and a famous warrior named Chikuzen Shimotsuna was brought from Yamashina in Omi to superintend the fortress. The castle was named the "Yamao," on account of the mountain. In 1573 the great Oda Nobunaga, in supreme military power at Kyoto, sent his retainer, Morimasa Sakuma, to reduce the castle at Kanazawa to submission, and in 1580 Sakuma was given possession of the castle. After the death of Sakuma in the battle of Shizugatake, Hideyoshi, who had succeeded Oda, gave Kanazawa Castle to Toshi-ye Mayeda, who gave the stronghold its present name, and the Mayeda family remained in possession down to the Meiji period. It was under the Mayeda family that the city became a place of great importance and the whole surrounding country experienced unwon'ted development and prosperity. The present head of the family, Marquis Toshinari Mayeda, a Captain in the Imperial Army, still has his estates there with chief residence in Tokyo, and remains one of the first peers of the realm.

Indeed, the history of Kanazawa from the beginning of the seventeenth century down to the Restoration period is largely a history of the wise and admirable management of the lords of Kaga, all of whom through successive generations proved men of great ability as soldiers and statesmen. The policy of encouraging agriculture and rendering

every possible aid to the population, begun by the first lord of Kaga, was continued by his successors, and the third daimyo, Toshitsuné, was distinguished for his appreciation of literature as well as ability in statesmanship and his encouragement of education and fine art, always gathering about him men of skill and artistic accomplishments. The influence of the Mayeda family on the art and industry of Kanazawa has been the making of the place. Tsunanori, the fifth lord of Kaga, was so distinguished as an administrator that the saying became current in high places that for brilliant administration of estates Kaga was first and Tosa second. When the Restoration of Imperial Power was about to be accomplished, Keinmei, the fourteenth lord of Kaga, at once championed the Imperial cause against the shogun and sent an army against the opponents of the new *régime*, defeating them in the battle of Ou, the Emperor rewarding him in a signal manner.

At the time of the fall of the shogunate in 1869 Kanazawa was a town of only 120 streets, but after the abolition of clan government the space occupied by the retainers of the daimyo was taken as part of the city and the streets increased to 531. In 1873 the Prefectural Office was established at Kanazawa and a garrison placed there, being later succeeded by the 9th Division of the Imperial Army. In time, Kanazawa was connected with the main line of railway, and schools and factories rising everywhere began to indicate the rapid modernisation of the city. In 1889 the old village system of government gave way to the present municipal system, and Kanazawa became a real city with good streets and roads and other city improvements, including first-class communications. The city of Kanazawa has now 38,229 households, with a population of 137,734.

One of the most important products of Kanazawa is hard porcelain, the principal manufacturing company being the Koshitsu Toki Kaisha, working on a capital of 600,000 yen. The porcelain turned out by this company is noted for its art and durability, being able to stand any temperature and having a beautiful white glaze. This porcelain is now an increasing export of Kanazawa. The next most important product of the district is habutai, or silk piece goods, the Kosansha Company being the most famous weavers since 1887. Beginning with silk handkerchiefs, the company soon undertook regular piece goods, which at once became a specialty of Ishikawa Prefecture. At present Kanazawa is one of the most important centres in Japan for light silk goods, the annual turnover from this source amount-

ing to about 6,000,000 yen. Kanazawa is also showing an increasing production of metal foil of all kinds, more than half the output of Japan coming from this district, exports going chiefly to Siam, India, and Annam, the yearly value now amounting to some 800,000 yen. The hemp braid industry, too, is making rapid progress in Kanazawa, most of the output being shipped through Yokohama dealers, the annual value reaching about 750,000 yen. The city has various other industries, but those mentioned are the most important.

It would take up too much space to tell of all the interesting places the tourist might visit at Kanazawa. The Oyama Jinja, a Shinto shrine dedicated to the spirits of the Mayeda family, is one of the most interesting. It is near the mansion of Marquis Mayeda, noted for its beautiful gardens. Kenroku Park, the former site of the daimyo's mansion, is an excellent example of Japanese taste in landscape gardening, every tree and rock within the enclosure having a history. The story of Kanazawa Castle, one of the greatest fortresses in the Empire, already referred to, would be one of great interest to narrate, as its ancient walls have experienced stirring times and passed through famous episodes in the history of Japan. It is now the headquarters for the Division of the Imperial Army stationed there.

It is in Kanazawa that one can see the famous six-blossomed lotus of matchless crimson hue, the best place being at the Myoren Pond. A remarkable thing about this lotus is that if transplanted elsewhere it returns to but a single blossom, like the ordinary lotus, thus giving rise to one of the most interesting botanical questions in the world of science. No wonder that the people of the district have a superstitious faith in its petals, which they dry and use for medicine.

All around Kanazawa are numerous places of historic interest, such as Nonoichi, where the old feudal office used to be, and Kamikanaiwamachi near the mouth of the Saigawa, the birthplace of the famous Gohei Zeniya. On Ishiyama stands the ancient Daijōji Temple, founded in 1261, and farther in the country is Shirayamahime Shrine. At the town of Matsuto stands an old castle of the same name, that has seen many a battle, and at Dangisho is the beautiful Naruwataki Falls, where the brave Toshitsuné rested during his flight from Oshu. On Mount Tonami was the ancient barrier between the provinces, often mentioned in history and literature. The Dentoji Temple, some two miles from Kanazawa, was erected at the command of the Emperor Komei in 1339, though since rebuilt, and is under the protection of the Mayeda family.

THE CITY OF HIROSHIMA

THOUGH the city of Hiroshima is coming to occupy a place of increasing importance in the commerce and industry of southern Japan, it has in the past been thought of chiefly as a strategic position. In the wars with China and Russia it was selected as the Imperial Army headquarters, and has thus been honoured by visits from His Majesty the Emperor as Commander-in-Chief of the national forces. The Fifth Army Division is stationed at Hiroshima, and when war breaks out the first detachments proceeding to the front invariably start from there. One reason why the place is so strategically important is its nearness to the great naval port of Kuré, where transports and convoys are always in readiness for emergency. The city is also near Ujina as well as being centrally situated for communication with the various army divisions. Hiroshima, therefore, affords every facility for naval and military transportation when occasion calls.

Situated at the southern end of the Province of Aki where the bay curves deeply inland, the town is about a mile from the shore. Hiroshima is an old city, but did not show very marked progress until the Meiji era. It now has a population of about 170,000, representing some 40,000 families. Six streams of meagre proportions flow through the town, adding to its facilities for transportation as well as its picturesqueness. Some three hundred years ago whence the city dates its rise, Terumoto Mori, of the great house of that name, and ancestor of the present Prince Mori, built a castle at Hiroshima, the work starting in 1592 and reaching completion seven years later. Soon people from various parts began to settle on the sandy plain outside the fortress, and in time a prosperous city arose. When the Mori family took sides with Mitsunari Ishida against the Tokugawa clan and was defeated in the great battle of Sekigahara, the castle and estates were confiscated by the victors, who gave Hiroshima to Masanobu Fukushima. He, in turn, was dismissed for attempting to repair the stronghold without permission of the shogun, and so the castle passed into the hands of Naga-akira Asano, who was appointed lord of Hiroshima and whose family has survived the twelve intervening generations, being now represented by the Marquis Asano.

Hiroshima may be said to owe much of its modern prosperity to war, for it was not until after the war with China that the city began to show rapid growth in activity and population. When the war broke out and it was announced that Hiroshima was

chosen as the Imperial headquarters, reforms of all kinds began to be thoroughly carried out. The streets were improved and a system of waterworks was started, with sewerage mains laid down, as the Emperor and his retinue of high personages could not be allowed to sojourn in a city that was not modern in a sanitary sense. Not only so, but it is of the utmost importance that centres where great bodies of troops congregate should be thoroughly sanitary, so as to prevent disease in the army. All these considerations combined to further the interests of Hiroshima in a very marked degree. The army set out to make a system of waterworks of its own to supply pure water for the troops, the task being accomplished in the short space of six months, and afterwards this was connected with the city water system at a cost of 640,000 yen to the city. Hiroshima is now quite a modern city, with all the usual improvements.

Commercially the significance of Hiroshima may be inferred from the fact that it has 444 incorporated industrial or other companies representing a capital of 19,188,000 yen, and the place is regarded as one of the most important distributing centres west of Osaka, dealing in general goods, though manufactures are growing. As the city is in direct communication with all the great centres of industry, north and south, it is expected to have a bright future. One of the chief articles of manufacture is a coarse cotton cloth of which the annual output is valued at some 2,000,000 yen. Most of the industrial products of Hiroshima are for home consumption,

including large quantities of tinned goods, *geta*, umbrellas, matches, mosquito nets, and cotton yarns.

Among the more important public buildings of the city are the High Court of Appeal, one of the seven such tribunals in the Empire; the Prefectural Office; the headquarters of the Fifth Army Division and the Ninth Brigade; as well as the Higher Normal College, with many other educational institutions, including a military preparatory school, two middle schools, three girls' high schools, five primary and eighteen elementary schools.

Historically the most interesting spot in Hiroshima is, of course, the old castle and its precincts, standing northward toward the centre of the city which it dominates. The site is well placed at a point where six streams divide in deltas seaward. The great walls of the fortress measure 33,200 feet in circumference and have 20 gates. The keep, which is 72 feet by 54 at the base, tower to a height of 108 feet above the 136 other minor eminences and pinnacles. As this stronghold has never been destroyed by war or fire, it presents one of the finest examples of ancient castle architecture in Japan. The headquarters of the Fifth Army Division are in the castle, as are also the apartments occupied by the Emperor during war time. The plain solidity of the castle appeals to the severity of Japanese taste, and consequently the castle is admired by the whole nation.

The city of Hiroshima has many beautiful parks, of which Futaba is a good example, rising, as it does, through wooded hills, affording good views of landscape, with the

Kanda River flowing gracefully in front. The park is a scene of fine trees and fair blossoms in season, the wistaria being especially beautiful. The Nigitsu Shrine in the park is an ancient foundation dedicated to the spirits of the ancestors of the Asano family, and possesses among its treasures the war drum and other accoutrements used by Nagamasa in the expedition to Korea. Farther eastward along the river is the Shuk-keien Garden, formerly the site of the Asano mansion, but which is now open to the public, offering superb views and exquisite examples of landscape gardening in the Japanese manner. As the name implies, the garden is a miniature of the famous West Lake in China. From Eba Park, near the village of the same name, a fine view of the city may be had, the spot being a favourite resort in summer on account of the shade trees, as well as the scenery. The Toshogu Shrine is picturesquely situated on a hill approached by a flight of 52 stone steps, and is dedicated to the shogun Iyeyasu, being a thank-offering from the Asano family for favours received. At the southern side of the same hill stands the Temmangu Shrine, in memory of the famous loyalist and exile, Sugawara Michizané, who is said to have gone there to obtain a beautiful view of the surrounding country, when on his way to banishment in Kyushu. Across wide fields of rice waving in the wind the eye dwells pleasantly on the village of Eba, near the sea, with Ujina beyond. In summer the hills around Hiroshima are alive with people gathering the wild flowers in which this region abounds.





TOKYO RAILWAY STATION AND STATION HOTEL

XLIV. GOVERNMENT RAILWAYS

BRIEF HISTORY—RAILWAY NATIONALIZATION AND ITS RESULTS—NEW DEPARTURES SINCE RAILWAY NATIONALIZATION—SOME STATISTICS SHOWING THE PROGRESS OF THE GOVERNMENT RAILWAYS

JAPAN'S railway schemes date back to 1869, in which year the Government decided to undertake the construction of railway lines in the Empire. In the next year work was commenced on the railway line between Tokyo and Yokohama in March, and on that between Osaka and Kōbē in November. The year 1872 saw the opening to traffic of the Shinagawa-Yokohama section in May, and the line being completed to Shimbashi in July, the opening of the railway between Tokyo and Yokohama was celebrated at the Shimbashi terminus, Tokyo (the present Shiodome goods station), in November in the presence of the Emperor Meiji. This is the inception of the present far-reaching railway systems of this country. The Osaka-Kōbē line was opened to traffic in May, 1874, and the Kyoto-Osaka line in February, 1877, the present trunk line, known as Tokaido Line, thus gradually developing from both ends. Private railway enterprises were started in 1881 with the establishment of the Nippon Railway Company. This company set to work on the line between Ueno (Tokyo) and Kumagaya under the Government protection, and opened it to traffic in July, 1883. Both Government and private schemes made steady progress year by year, and, in May, 1887, the Government established the Private Railway Act for encouraging private railway enterprises and

endowed them with such privileges as expropriation and tax exemption of land for railway building, etc. This proved an immediate impetus to the rise of railway construction with private capital. In 1888 the San-yō Railway Company opened to traffic the Kōbē-Himeji section, and in 1889 the Kyushu Railway Company, the Hakata-Kurume section. Thus these private lines formed by degrees the present trunk line system comprising the North-Eastern, Tokaido, San-yō, and Kyushu Lines. One company came into existence after another; the Kōbu, Kwansai, Iyō, Ryōmō, Sanuki, and Hokkaido Colliery Railway Companies were established. After the Chino-Japanese War the investment of private capital in various enterprises reached its zenith and at the end of 1899 private companies numbered more than 30. This divergent ownership and management brought in its train lack of systematic working, etc., and the question of railway nationalization began to receive the serious attention of both the Government and the general public. At last after years of investigation, the plan matured, and the Railway Nationalization Law was enacted in March, 1906, by which it was decided to turn over to Government ownership seventeen leading companies (Kōbu, Hokkaido Colliery, Nippon, Gan-etsu, Nishinari, San-yō, Kyushu, Hokkaido, Kyoto, Hokuetsu, Hankwaku, Sobu, Boso, Nanao,

Tokushima, Kwansai, and Sangu). In the two years of 1906 and 1907, the Government bought the lines of all these companies, and the total Government lines on the completion of the railway nationalization extended to 4,371 miles, about three times their former length of 1,518 miles, while the invested capital grew from Yen 170,000,000 to Yen 700,000,000. Since then, the construction of the Government lines has been pushed steadily on, and even comparatively remote districts are being provided with railway facilities. At the end of 1916 the aggregate mileage of the Imperial Government Railways reached 5,860 miles, and the extension of lines since the nationalization has been 1,489 miles. Various kinds of railways under private ownership in Japan proper at the end of November, 1915, were 2,829 miles in total length (railways, 214 miles; light railways, 1,404 miles; urban and other tramways, 1,211 miles). The total length of railways in Japan proper, State-owned and private, was roughly 8,600 miles, and the aggregate mileage including Chosen, Formosa, Karafuto, and South Manchuria roughly 11,000 miles. Thus, Japan's railway development has been steady and significant, and is all the more remarkable in view of the geographical nature of the islands. Capital invested up to March, 1914, was Yen 967,001,763, and that up to March, 1915, is estimated at Yen 1,010,284,563.

and the annual net profit for one year ending April, 1915, was Yen 54,564,532, while that down to April, 1916, is estimated at Yen 60,089,087. The figures showing the rate of profit accruing from the railway working for the last decade are as follows:

| | |
|----------------|--------------|
| 1906-1907..... | 8.7 Per Cent |
| 1907-1908..... | 8.5 Per Cent |
| 1908-1909..... | 7.6 Per Cent |
| 1909-1910..... | 7.6 Per Cent |
| 1910-1911..... | 8.1 Per Cent |
| 1911-1912..... | 9.0 Per Cent |
| 1912-1913..... | 8.9 Per Cent |
| 1913-1914..... | 8.4 Per Cent |
| 1914-1915..... | 7.3 Per Cent |
| 1915-1916..... | 8.2 Per Cent |

RAILWAY NATIONALIZATION AND ITS RESULTS

THE merits resultant from the railway nationalization are manifold, and to explain the progress of the Government Railways more fully, we shall point to the principal achievements in detail. One of the chief aims of the railway nationalization was the systematic working by means of through

train services, unified passenger and goods tariffs, simplified transactions and accountings, thereby increasing the efficiency of service, and simultaneously the revenues accruing from it. Train operations have been completely systematised on all the main and branch lines, especially on the trunk lines between Tokyo and Kagoshima and between Ueno (Tokyo) and Kushiro. Passenger fares which had been on varied bases peculiar to each company before the nationalization, were unified by adjusting traffic mileage and revising the scale on and after November 1, 1907, on the completion of the purchase of the private lines in October of that year. In this revision all passenger rates in force on the former Government and private lines were taken into consideration, and the new tariff was laid down on the tapering system (cheaper rates for longer journeys), with a view to the reduction of imposts in general. Although some steps had been taken to revise goods rates on the Government lines except in Kyushu, consideration of local conditions and competition prevented the thorough unifying of the goods tariffs and the nationalized

railways continued to be on the different bases formerly adopted by each company. The goods tariff was chiefly local and highly differential, but at last was thoroughly revised in October, 1912, and placed on the equal basis almost, on all the Government lines. To sum up the whole scheme, the tariff was generally made cheaper (especially for such staple goods as coal, minerals, fish, silk cocoons, etc.), and almost uniform on the *Barême Belge* with flat-rates instead of the former *Barême à paliers*; terminal charges were included in freights and their rates lowered for short hauls; the calculation of freights simplified; 1st, 2nd, and 3rd classes applied to ear-load consignments (formerly grouped in two classes, high class and below 3rd class), in order to be fair to all kinds of shippers; the fifty *kin* unit was replaced by the ten *kin* unit for piece consignments according to *kin* rates; overland freights were calculated through when the goods were conveyed by the channel steamers; extra rates for valuable goods and animals were greatly reduced. Both passenger fares and goods rates are reckoned through, not separately on different sections, as was the



ELECTRIC TRAIN, IN USE ON BOTH URBAN AND INTERURBAN LINES—OBSERVATION CAR, LIMITED EXPRESS



YOKOHAMA STATION—KYOTO STATION, ESPECIALLY BUILT FOR THE IMPERIAL CORONATION CEREMONIES IN 1915—SANNOMIYA RAILWAY STATION—HEAD OFFICE OF THE IMPERIAL GOVERNMENT RAILWAY, TOKYO—THE STATION AT KYOTO



EXPRESS LOCOMOTIVE BUILT AT KAWASAKI DOCKYARD, KOBÉ

case prior to the nationalization. This undoubtedly has contributed not a little to the increase of efficiency of the passenger and goods service. The statistics showing the progress of passenger-miles and ton-miles are as follows:

| FISCAL YEAR BEGINNING | PASSENGER- MILES | TON- MILES |
|-----------------------------|---------------------|---------------|
| April | | |
| 1906 | 2,294,882,361 | 1,426,969,053 |
| 1907 | 2,621,434,819 | 1,545,991,639 |
| 1908 | 2,743,203,558 | 1,829,429,158 |
| 1909 | 2,812,329,108 | 1,911,197,440 |
| 1910 | 3,038,736,966 | 2,126,834,473 |
| 1911 | 3,382,586,411 | 2,347,871,475 |
| 1912 | 3,626,316,499 | 2,691,464,174 |
| 1913 | 3,690,964,619 | 3,053,852,638 |
| 1914 | 3,623,743,236 | 2,982,798,482 |
| 1915 | 3,856,536,966 | 3,309,518,677 |

The most significant result of the unification of the passenger and goods tariffs was the general reduction in fares and rates on account of cheaper rates for longer journeys and hauls. The cheapness of fares and rates results naturally in stimulating productive industries and is effectual in multiplying the national wealth. The figures showing this tendency are given below. Cheaper passenger fares are chiefly due to the increase of long-distance travellers, season and commutation ticket holders, etc. As for the goods rates, they had gradually fallen along with the development of longer hauls down to 1912, in which year the receipts fell off more than ten per cent again owing to the revision of the goods tariff. We

have reasons to believe that this cheap conveyance directly and indirectly goes far towards helping the industrial activities of our country and the corresponding increase in the national wealth.

Furthermore, these cheap fares and rates are levied for shorter journeys and hauls than those on foreign railways. The average journey per passenger is 2.4 miles and the average haul per ton is 92.4 miles, according to the latest returns available. When these conditions are taken into consideration, our railway fares and rates may be considered exceptionally cheap.

| FISCAL YEAR BEGINNING | PASSENGER FARES PER PASSENGER- MILE | GOODS RATES PER TON- MILE |
|-----------------------------|--|------------------------------------|
| April | Yen | Yen |
| 1906 | .0155 | .0199 |
| 1907 | .0149 | .0203 |
| 1908 | .0142 | .0194 |
| 1909 | .0140 | .0193 |
| 1910 | .0139 | .0191 |
| 1911 | .0139 | .0194 |
| 1912 | .0138 | .0183 |
| 1913 | .0139 | .0174 |
| 1914 | .0138 | .0172 |
| 1915 | .0132 | .0171 |

The railway nationalization was also effective in adjusting differences that had existed in the types of rolling-stock and various materials, making one type common to all the lines and beneficial for working. Passenger-cars have been improved by degrees; second class sleeping-cars were inaugurated, cushions in third-class cars made better, the highest standard of accommodation reached by the Tokyo-Shimonoseki Train-de-Luxe, etc. Besides, the use of larger types of passenger-cars has made the average seating space much more roomy, and warming apparatus has been installed as widely as possible. These improvements have enabled the Government Railways to warrant the comfort, if not luxury, of accommodation, and encourage tours and travel at large, which results ultimately in the provision of further facilities for travelling.



A TYPICAL SCENE AT A SMALL STATION ON A JAPANESE RAILWAY

As for goods-wagons, the improvement of axles has increased the loading capacity of these wagons, and those now built are chiefly fifteen tons in capacity. Those cars with which faults had been found, such as damaged axles, imperfect construction, etc., have been replaced by new and more solid wagons. Thus the loading capacity has grown year by year, as follows:

| FISCAL YEAR BEGINNING | AVERAGE LOADING-CAPACITY PER GOODS-WAGON (TONS) |
|-----------------------|---|
| April 1906 | 7.1 |
| 1907 | 7.2 |
| 1908 | 7.2 |
| 1909 | 7.3 |
| 1910 | 7.4 |
| 1911 | 7.7 |
| 1912 | 8.2 |
| 1913 | 8.6 |
| 1914 | 8.9 |
| 1915 | 9.4 |

More powerful locomotives have been put into use by degrees and especially since 1911 super-heater locomotives have been generally run with great economy. The use of heavy locomotives with increased traction-power has necessitated the corresponding improvement of tracks for bearing heavy loads. No doubt heavy locomotives and better tracks

| FISCAL YEAR BEGINNING | AVERAGE NUMBER OF CARS PER TRAIN | AVERAGE LOAD PER TRAIN (TONS) |
|-----------------------|----------------------------------|-------------------------------|
| April 1907 | 20.4 | 71.0 |
| 1908 | 21.8 | 76.9 |
| 1909 | 24.3 | 90.3 |
| 1910 | 25.4 | 96.3 |
| 1911 | 24.6 | 95.1 |
| 1912 | 24.3 | 98.8 |
| 1913 | 25.1 | 103.9 |
| 1914 | 25.6 | 106.7 |
| 1915 | 27.1 | 115.5 |

mean much for the general efficiency of railway traffic. Also the tractive capacity of various locomotives has been systematised to the great convenience of transportation, and the annual increase in the average number of cars and the average load per train has been remarkable.

Besides, refrigerator-cars are now run for the conveyance of fresh fish and meat, etc. October, 1911, saw the transport of goods-wagons between Shimonoseki and Moji for their through operation between the Mail

Island and Kyushu, and the damage incidental to the former method of transshipment was entirely got rid of, making possible the through conveyance of bulky and heavy goods and coal and marking a period in the local traffic conditions. These three results — systematic working, reduced rates, and adjustment of rolling-stock and materials — are the chief among the various achievements of the nationalized railways, but from the financial point of view, the following two items may also be brought forward. One is the general decrease in the expenses of management and the other is that in the operating expenditure. As seventeen railway companies ceased to exist on the railway nationalization, the economy of the salaries of their directors and the staff for general affairs and accounting business, was estimated at Yen 970,000. The returns down to 1915 show a considerable decrease of these managing expenses in proportion to the operating expenditure, as given below.

At the beginning of the nationalization, an economy of the operating expenditure was expected from the avoidance of clearing business among various railways for through traffic. Although the sum to be thus economised was then estimated at Yen 170,000, no statistics are available to prove this, but still there is much evidence to testify that it has been the case.

Also in the financial arrangement of the State, the Government Railways are now set apart as a special account, and all disbursements for construction, working, improvement, etc., are to be met by the receipts and profit accruing from railway traffic.

Last but not least, another feature of the railway nationalization is the efficiency of transportation due to the unobstructed circulation of the rolling-stock on all the lines according to traffic conditions and the relative reduction of spare cars and wagons. This increase of efficiency was primarily estimated at 10 or 20 per cent. Thus, goods-wagons

except those of special types have been made common to all the lines in the Main Island, and since the opening of wagon-crossing on the Moji-Shimonoseki channel, Kyushu has been included in the sphere of circulation of goods-wagons. The haul of empty wagons, which had been of very frequent necessity prior to the nationalization, practically became unnecessary, and as this naturally produces a surplus of transportation capacity, the circulation of rolling-stock among several lines leaves almost nothing to be desired. At the same time, car repairs can now be effected in consideration of the quantity of traffic. As no statistics are available before the nationalization, we can not give evidence to this fact by means of figures.

NEW DEPARTURES SINCE RAILWAY NATIONALIZATION

SINCE the railway nationalization the Government Railways have made a point of adjusting different systems and institutions, as detailed above, and also left nothing unturned to introduce necessary new arrangements for the working of railway traffic. Some of these new departures are given in the following paragraphs.

The railway lines in Japan proper are of narrow gauge, but the railway management is doing its best to effect various innovations in passenger and other services in the matter of comfort, speed, and safety, as far as circumstances permit. The issuing of season and commutation tickets on all sections of the Government Railways and also the electric-car and steam motor-car services in operation on some heavy traffic sections have proved very convenient for interurban and suburban travellers, enabled busy citizens to live in healthy suburban surroundings, and contributed much to the development of the environs of cities and towns. Also, the speed of trains has been gradually accelerated to the great convenience of long-distance passengers, and their running systems systematised, as

| FISCAL YEAR BEGINNING | OPERATING EXPENDITURE | MANAGING EXPENDITURE | RATIO OF THE LATTER TO THE FORMER |
|-----------------------|-----------------------|----------------------|-----------------------------------|
| April | Yen | Yen | |
| 1906 | 33,809,927 | 2,379,078 | .069 |
| 1907 | 37,989,259 | 1,124,902 | .030 |
| 1908 | 41,096,073 | 1,078,869 | .026 |
| 1909 | 40,824,988 | 969,509 | .024 |
| 1910 | 41,868,250 | 1,161,527 | .028 |
| 1911 | 44,251,827 | 1,311,760 | .030 |
| 1912 | 48,395,753 | 1,456,400 | .030 |
| 1913 | 52,172,161 | 1,360,415 | .026 |
| 1914 | 55,360,979 | 1,369,091 | .025 |
| 1915 | 53,802,030 | 1,181,101 | .022 |



"FUSAN SHIMONOSEKI," COMMUNICATION STEAMER, AT SHIMONOSEKI WHARF

referred to above. Through services on various sections have to a large extent done away with the necessity of transfer at junctions, and through trains now run between Ueno (Tokyo) and Aomori *via* the Joban Line (along the Pacific coast) and *via* the Ou Line (along the northeastern coast on the Japan Sea), and through train services on the trunk line between Tokyo and Shimonoski have been increased in number, inaugurating the daily train-de-luxe chiefly for the benefit of through travellers to Chosen, Manchuria, and farther afield to China and Europe. Various equipments in passenger-cars have been improved and train staff increased in number and refined in quality. In comparison with 1910, the present train speed has cut off about four hours west of Tokyo and more north of Tokyo. The passenger fares were made cheaper on the trunk line sections, as per accompanying table:

and also for advancing the last mentioned expenses, which were formerly in force locally. The great benefit resultant from these arrangements can be statistically testified.

In addition to these new departures, the Government Railways have been making strenuous endeavours to make both passenger and goods traffic as smooth as possible. The principal sections of lines have been doubled and even quadrupled where necessary, bridges and tracks made solid, and many stations renewed. Now the new buildings of such metropolitan termini as Tokyo, Shimbashi, and Manseibashi, and the stations in Yokohama, Kyoto, Moji, etc., form attractive features of these cities. Besides, the utmost efforts have been made to improve all passenger-cars, goods-wagons, and locomotives, as already mentioned. Although the expenditure since 1908 for

natural expansion of the national strength and discharge their duty as the common carriers to the fullest extent, it is of urgent necessity for the Government Railways to spend more for the improvement of the existing lines and to bring their transportation capacity to perfection. Although the European War has impeded the growth of railway traffic considerably, the normal ratio of increase of quantity of traffic before the present war was about six per cent for passengers or about ten per cent for goods. After peace has been established and commercial relations again become normal, the said ratio of increase in traffic, it is trusted, will also return to its normal tide and not fall off by any appreciable quantity.

| TRUNK LINE | FIRST CLASS | SECOND CLASS | THIRD CLASS |
|------------------------|-------------|--------------|-------------|
| | Yen | Yen | Yen |
| Tokyo-Aomori..... | 1.91 | 1.34 | 0.89 |
| Tokyo-Shimonoseki..... | 5.12 | 3.81 | 1.50 |

Not only the Main Island but both Kyushu and Hokkaido are now provided with express and through trains running at high speed, and equal degree of excellence of service is now assured in these comparatively remote districts.

Among various latest arrangements for goods traffic, the most important are the inauguration of collection on delivery for wagon goods and parcels, and the extension of the systems for paying at destinations freight charges and incidental expenses

improvements on the former lines amounts roughly to more than Yen 140,000,000, ideal equipments are impossible to suit the ever-increasing quantity of passenger and goods traffic. In the busiest seasons, the lack of sufficient transportation capacity hinders the free circulation of wagons, and scarcity of rolling-stock inevitably accompanies the accumulation of goods at various points. This is also true with passenger traffic, and there occur cases of unavoidable overcrowding of passenger-cars. In order to be fit for the



FERRY STEAMER BETWEEN MAINLAND AND HOKKAIDO



OBSERVATION CAR—DINING CAR—FIRST CLASS SLEEPER

In such circumstances, the necessity of larger expenditure for improvements is undoubtedly worth the most serious attention of the general public as well as the railway authorities.

| MILES OPEN TO TRAFFIC | |
|-----------------------|-----------------------------------|
| FISCAL YEAR | MILES OPEN AT THE END OF THE YEAR |
| 1892 | 1,830.2 |
| 1897 | 2,768.9 |
| 1902 | 3,844.0 |
| 1905 | 4,345.8 |
| 1908 | 4,542.9 |
| 1911 | 5,044.1 |
| 1914 | 5,689.5 |
| 1915 | 5,759.0 |
| 1916 | 5,860.0 |

The extension of new lines into every nook and corner of the Empire has been steadily pushed on. As already pointed out, the increase of length of lines since the nationalization reached 1,388 miles at the end of 1915 and the capital invested in them amounted roughly to Yen 150,000,000. Consequently more remote parts of the Empire have been

PASSENGER AND GOODS TRAFFIC

| FISCAL YEAR | PASSENGERS | PASSENGER-MILES | GOODS IN TONS | TON-MILES |
|-------------|-------------|-----------------|---------------|---------------|
| 1892 | 25,935,490 | 572,206,013 | 2,673,848 | 136,500,476 |
| 1897 | 76,089,173 | 1,414,985,083 | 8,360,029 | 409,988,854 |
| 1902 | 95,672,218 | 1,767,578,228 | 15,300,351 | 897,083,372 |
| 1905 | 97,701,960 | 2,381,339,652 | 20,278,673 | 1,333,378,644 |
| 1908 | 123,227,543 | 2,743,203,558 | 23,524,559 | 1,829,429,158 |
| 1911 | 151,077,779 | 3,382,586,411 | 29,337,054 | 2,347,871,475 |
| 1914 | 166,092,421 | 3,623,743,236 | 35,272,875 | 2,982,798,481 |
| 1915 | 172,290,045 | 3,856,536,966 | 35,800,664 | 3,309,518,677 |

TRAFFIC RECEIPTS

| FISCAL YEAR | PASSENGERS | GOODS | MISCELLANEOUS | TOTAL |
|-------------|------------|------------|---------------|-------------|
| | Yen | Yen | Yen | Yen |
| 1892 | 6,167,277 | 2,527,913 | 204,548 | 8,899,738 |
| 1897 | 17,083,213 | 8,148,188 | 611,547 | 25,842,948 |
| 1902 | 28,305,010 | 19,570,027 | 1,607,131 | 49,482,168 |
| 1905 | 34,126,740 | 28,293,400 | 3,839,325 | 66,259,465 |
| 1908 | 41,920,361 | 34,898,935 | 1,063,777 | 77,883,073 |
| 1911 | 50,985,660 | 45,636,565 | 1,510,675 | 98,132,900 |
| 1914 | 55,044,167 | 52,451,363 | 2,429,981 | 109,925,511 |
| 1915 | 57,162,227 | 57,985,710 | 2,646,696 | 117,794,633 |
| 1916 | 64,977,652 | 69,783,796 | 3,260,000 | 138,021,448 |

provided with railway lines, and even where travelling was formerly done only on foot or by jinrikisha and the conveyance of goods only on horseback or by men, railway facilities are enjoyed and travelling and transport have been made much more economical in expense and time. Of course the extension of railway lines is still unsatisfactory, as is fully known to the public, and future efforts should be in the direction of perfecting railway systems and making them as far-reaching as possible.

Improvements and new departures in either passenger and goods traffic are as outlined above, but such matters as accelerating train-speed, making trains and tracks better appointed, simplifying transactions, etc., still require much of the attention of the railway authorities.

CAR AND TRAIN MILES

| FISCAL YEAR | CAR-MILES | TRAIN-MILES |
|-------------|---------------|-------------|
| 1892 | ..... | 7,587,852 |
| 1897 | ..... | 17,635,987 |
| 1902 | 451,406,349 | 29,599,664 |
| 1905 | 560,527,085 | 33,818,809 |
| 1908 | 771,844,901 | 43,422,967 |
| 1911 | 899,629,853 | 49,605,446 |
| 1914 | 1,071,026,028 | 58,420,612 |
| 1915 | 1,151,358,267 | 60,303,844 |

TRAFFIC BALANCES

| FISCAL YEAR | OPERATING EXPENDITURE | PROFIT |
|-------------|-----------------------|------------|
| | Yen | Yen |
| 1892 | 4,281,516 | 4,618,222 |
| 1897 | 12,413,553 | 13,429,395 |
| 1902 | 23,167,002 | 26,315,166 |
| 1905 | 28,857,998 | 37,401,467 |
| 1908 | 41,096,073 | 36,787,000 |
| 1911 | 44,251,827 | 53,881,073 |
| 1914 | 55,360,979 | 54,564,532 |
| 1915 | 53,802,030 | 63,992,603 |
| 1916 | 58,446,176 | 79,575,272 |

Not only for railway communications in the Empire, further facilities are offered by the operation of efficient channel steamer services between Fusan and Shimonoseki for Japan proper-Chosen connections, between Aomori and Hakodate for the Main Island-Hokkaido connections, and other short launch services, in order to carry out efficiently through conveyance of passengers and goods from or to the continent and between the different islands forming Japan proper. As the Japanese Empire is comparatively small in area and her development owes much to the expansion of the sphere of her activity over the seas, we can not be satisfied with the progress of the

CERTAIN AVERAGES OF TRAFFIC RECEIPTS

| FISCAL YEAR | PASSENGER RECEIPTS PER PASSENGER-MILE | GOODS RECEIPTS PER TON-MILE | RECEIPTS PER MILE OPEN | RECEIPTS PER TRAIN-MILE |
|-------------|---------------------------------------|-----------------------------|------------------------|-------------------------|
| | Yen | Yen | Yen | Yen |
| 1892 | .01078 | .01852 | 5,004 | 1.173 |
| 1897 | .01207 | .01987 | 10,147 | 1.465 |
| 1902 | .01600 | .02182 | 13,297 | 1.672 |
| 1905 | .01436 | .02121 | 15,360 | 1.959 |
| 1908 | .01528 | .01908 | 17,259 | 1.726 |
| 1911 | .01507 | .01944 | 19,824 | 1.978 |
| 1914 | .01519 | .01758 | 19,682 | 1.916 |
| 1915 | .01482 | .01752 | 20,560 | 1.953 |

CERTAIN AVERAGES OF OPERATING EXPENDITURE

| FISCAL YEAR | OPERATING EXPENDITURE PER MILE OPEN | DITTO PER TRAIN-MILE | DITTO PER PASSENGER-TON-MILE |
|-------------|-------------------------------------|----------------------|------------------------------|
| 1892 | 2,407 | .56126 | .00604 |
| 1897 | 4,874 | .70388 | .00680 |
| 1902 | 6,226 | .78268 | .00869 |
| 1905 | 6,690 | .85332 | .00777 |
| 1908 | 9,107 | .94640 | .00899 |
| 1911 | 8,939 | .89208 | .00772 |
| 1914 | 9,912 | .94763 | .00838 |
| 1915 | 9,391 | .89218 | .00751 |

CERTAIN AVERAGES PER DAY PER MILE

| FISCAL YEAR | TRAFFIC RECEIPTS | OPERATING EXPENDITURE | PROFIT |
|-------------|------------------|-----------------------|--------|
| | Yen | Yen | Yen |
| 1892 | 13,710 | 6,595 | 7,115 |
| 1897 | 27,800 | 13,353 | 14,447 |
| 1902 | 36,430 | 17,058 | 19,372 |
| 1905 | 42,082 | 18,329 | 23,753 |
| 1908 | 47,284 | 24,950 | 22,334 |
| 1911 | 54,163 | 24,424 | 29,739 |
| 1914 | 53,923 | 27,156 | 26,767 |
| 1915 | 56,175 | 25,658 | 30,517 |

OTHER STATISTICS

| FISCAL YEAR | RATIO OF EXPENDITURE TO RECEIPTS | CAPITAL (APPROXIMATE) APRIL 1 | RATIO OF PROFIT TO CAPITAL |
|-------------|----------------------------------|-------------------------------|----------------------------|
| | | Yen | |
| 1892 | .481 | 80,305,294 | .057 |
| 1897 | .480 | 136,725,350 | .098 |
| 1902 | .468 | 323,445,766 | .081 |
| 1905 | .436 | 397,637,340 | .094 |
| 1908 | .528 | 706,582,633 | .052 |
| 1911 | .451 | 819,198,477 | .066 |
| 1914 | .504 | 967,001,763 | .056 |
| 1915 | .457 | 1,000,469,583 | .064 |

These figures include the actual prices of the nationalized lines.

internal business alone, but taking advantage of the Empire's position in the centre of the Pacific trade and travel, efforts have been incessantly made to perfect international through traffic relations for the extension of her national activities. With this in view, through traffic arrangements have been of late put into force one after another. There are, on one hand, the through booking arrangements for passengers and their luggage to and from those neighbouring lands, such as Chosen, North and South Manchuria, Russian Maritime Province, China, and farther afield to and from European Russia and West Europe over the trans-Siberian

route, while on the other, arrangements exist for the issuing of interchange tickets between Japanese and Chinese ports of call with the chief trans-Pacific and Suez steamer lines, with a view to passengers breaking the monotony of a sea voyage by overland journeys. The through traffic of goods was opened in 1914 with North Manchuria and Russian Maritime Province, and through conveyance of silk to European Russia *via* Siberia. Thus, to-day the Imperial Japanese Government Railways are striving to carry out passenger and goods traffic services most effectually not only within but beyond the limits of the Japanese Empire. With regard

to these oversea through traffic arrangements, efforts should be made in earnest and the international position of the Japanese Empire elevated more and more for turning her geographical advantages to development of her economical relations.

SOME STATISTICS SHOWING THE PROGRESS OF THE GOVERNMENT
RAILWAYS

FIGURES before the railway nationalization are the total of those for the Government Railways and the private railways nationalized. (See tables on pages 774-775.





KINTAI-KYO BRIDGE, SUO PROVINCE

XLV. POSTS, TELEGRAPHS, TELEPHONES, ROADS, RIVERS, AND BRIDGES

I. POST OFFICES: COURIER SYSTEM OF OLD JAPAN—ADVENT OF A MODERN POSTAL SYSTEM— DEVELOPMENT OF POSTAL BUSINESS. II. TELEGRAPHS AND TELEPHONES: EARLY DEVELOPMENT—TELEGRAPH AND TELEPHONE RATES AND REVENUE. III. ROADS, RIVERS, AND BRIDGES

UNDER the caption of Communications are included such public utilities as posts, telegraphs, telephones, roads, bridges, harbours, and shipping. Railways and other public works being under a different bureau, are treated under a separate heading in this volume. The Department of Communications was organised in 1885 to take over the supervision of post offices, telegraphs, lighthouses, and shipping, up to that time under the Department of Agriculture and Commerce, and the Department of Engineering since abolished. In 1891 telephones and electrical industries came under the supervision of this department, to which in 1892 was added the railway business, and a year later the general supervision of land and sea transportation. The department had now become so expanded as to have grown unwieldy, and after the nationalization of private railways a Railway Bureau was created in 1909.

I. POST OFFICES

COURIER SYSTEM OF OLD JAPAN

JAPAN claims to have had a postal service of rudimentary character from the year 202 A. D., when the Empress Jingo invaded Korea, but little is known of either its mode or efficiency, save that after some four hundred years it was improved under the influence of ideas borrowed from the relay system of China. The service was further reformed by the military government of Yoritomo at Kamakura in the twelfth century when couriers took the place of riders, but during the strife of the Ashikaga period all means of communication fell into abeyance. The Tokugawa shoguns had their own system of couriers which was inaugurated in 1696 to convey official communications from the Central Government to the various district officials, the letters and documents being placed in boxes

and carried from station to station, the stations being paid in rice. The various daimyo and their district officials maintained a messenger service, the most notable of which was that of Kii Province, by which communications were carried to post stations fifteen miles apart, though the service was strictly limited to official use. During the last two centuries of the Tokugawa era, however, the merchants of Osaka, Kyoto, and Yedo had a regular system of private letter carriers, and for sharing in this convenience the public were glad to pay high rates. This system continued down to the opening of Japan to Western intercourse in 1868.

ADVENT OF A MODERN POSTAL SYSTEM

WITH the accomplishment of the Restoration of Imperial Government and the rapid modernisation of the country, the people of Japan were glad to have the old relay system



A GLIMPSE OF THE CANAL SYSTEM OF JAPAN

of couriers, with all its abuses, give way to a new system modelled after that of Western nations. In December, 1868, a regular postal service was inaugurated between Tokyo and Kyoto, the service being extended to Osaka and Yokohama the next year. Stamps were now used for the first time to mark the payment of postage on letters. The new postal service made remarkable progress, soon opening up connections with Nagasaki in the south and Niigata in the west as well as Hakodate in the north, while the kinds of matter carried in the mails greatly increased, charges being calculated according to distance. In March, 1873, new regulations were issued by which private individuals were forbidden to engage in letter-carrying, and uniform rates of postage were fixed for all places within the Empire. In June, 1877, Japan joined the Universal Postal Union and organised a system of domestic and foreign mail service that has since continued and shown unusual development and efficiency. In 1879 the post offices maintained by the various European Powers in the Treaty Ports of Japan were withdrawn, the British Government taking the lead, after which time Japan enjoyed complete postal autonomy.

According to the existing system there are three grades of post offices in Japan, known as first, second, and third class post offices. First class post offices are in the larger cities of the Empire, like Tokyo and Osaka, and have the supervision of offices subordinate in character, as well as over maritime affairs in their respective districts. The chief of

such offices are at Tokyo, Osaka, Kumamoto, Sendai, and Sapporo. The vast majority of the national post offices are of the third grade, and are conducted on a contract system, an expedient which the Government finds highly economical.

DEVELOPMENT OF POSTAL BUSINESS

The postal service of Japan has not only shown remarkable development but has branched out into an extraordinary number of activities not usually undertaken by post offices in other countries, such as the carrying of every sort of freight with strict limits as to size and weight, the collection of taxes and bills, the distribution of advertisements, and the paying of pensions and annuities on behalf of the National Treasury. There is a special system for the collection and distribution of New Year messages and parcels, these being collected some weeks before the festive season opens and held in readiness for delivery at the proper moment, so as to save a crowding of the mails and consequent late deliveries. Mails are delivered twelve times daily in Tokyo, ten times in Osaka and Kyoto, the average for first class post offices being eight times a day, for

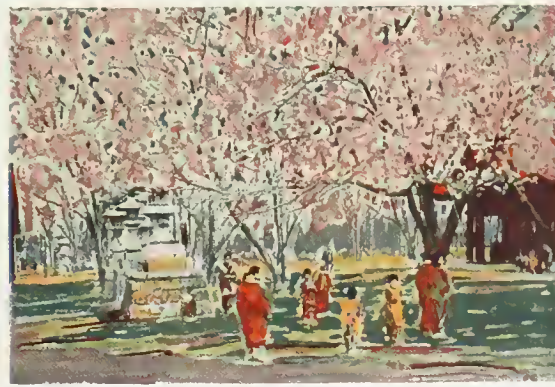
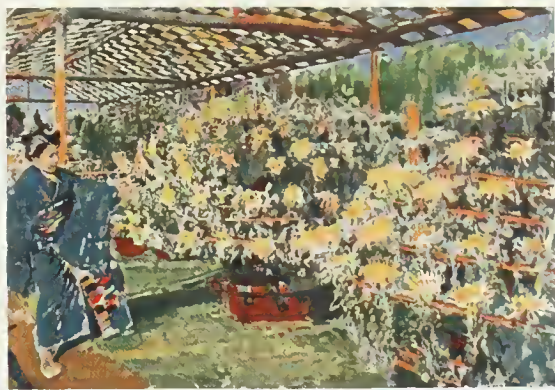
second class offices six times daily, and for third class post offices three times a day. There are special delivery services at reduced rates for various forms of mail matter. The regular letter postage inland is 3 sen for half an ounce, 9 sen for special delivery, and 7 sen extra for registration, while the charge for parcels is remarkably small. No money is allowed to be sent through the mails, and consequently there is a tremendous business in postal money orders, which have, nevertheless, to be registered, and so add 7 sen extra commission to the postal revenue. The Japanese post office does an important and growing business in savings deposits, the present rate being 4.8 per cent per annum.

The Japanese postal official is usually a courteous and faithful servant of the public, though there are sometimes eccentricities of service and interpretations of regulations that astonish the foreigner; and as for postmen, considering the small rate of wages they receive, they are remarkably efficient and honest, though not infrequently arrested for pilfering or tampering with the mails. One sees reports in the press of postmen accused of throwing away mail matter when distance proved inconvenient for delivery, and of removing stamps from letters, a habit encouraged by the custom of receiving postage stamps for deposit in the postal savings banks. Consequently it is a conviction with most citizens that letters bearing stamps of tempting denominations had better be carried to the nearest post office rather than dropped in the street box. The post office of Japan maintains a rural delivery that is probably unsurpassed in any other country, extending even to mountain regions where postmen have to face the risk of being waylaid by robbers and killed for the sake of the money orders and other commercial papers that may be negotiable.

The growth of Japan's postal business may be seen from the fact that in 1905 there were only 4,228 post offices, which increased to 6,932 in 1910, while at present the number is 7,266, or one for about every 7,410 of the population. The following table will indicate the rate of development in Japan's postal business during the last fifteen years at intervals of five years:

POSTS

| YEAR | OFFICES | MILES OF ROUTE | LETTERS, ETC. | PARCELS | FOREIGN |
|------|---------|----------------|---------------|------------|------------|
| 1905 | 6,237 | 61,135 | 1,256,691,581 | 13,795,163 | 27,700,108 |
| 1910 | 7,086 | 59,138 | 1,526,121,284 | 22,445,448 | 50,813,704 |
| 1915 | 7,266 | 54,313 | 1,816,144,272 | 25,473,020 | 17,245,000 |



WISTARIA, IN KASUKABE-KU, TOKYO

IRIS GARDEN, HORIKIRI-KU, TOKYO
AGARIA FLOWER, HIBIYA PARK, TOKYO

THE FLOWER SHOW
CHERRY TREES, KUDAN, TOKYO

II. TELEGRAPHS AND TELEPHONES

EARLY DEVELOPMENT

THE electric telegraph instrument was first brought to Japan by Commodore Perry as an example of the progress of invention in the United States, and the first telegraphic apparatus was set up in the palace of the Prince of Satsuma in 1858, as a curiosity and not for use. The first telegraph service was opened in Tokyo in 1872, the engineer being an Englishman, and to him and others of his race the Japanese system owes its initial success. So rapid was the development that Japan was ready to join the International Tele-

cables were laid between Japan and Formosa, and opened for service in 1910. According to Japan's agreement with the Great Northern Telegraph Company of Denmark that company has the exclusive right of landing on Japanese territory in connection with international cable service, and under these terms the Danish company laid cables between Nagasaki and Shanghai, Vladivostok and Fusan; but the cable which Japan laid to the continent during the war with Russia had rendered her independent of foreign service, and, as has been shown, led to her taking over the rights of the Danish company in Korea. The charter of the company, which expired in 1912, was renewed for the



PUNTING A MOTOR CAR ACROSS A STREAM

POSTAL MONEY ORDERS

| YEAR | DOMESTIC | | | | FOREIGN | | | |
|------|------------|-------------|------------|-------------|----------|-------------|---------|-------------|
| | REMITTED | | PAID | | REMITTED | | PAID | |
| | NUMBER | VALUE (Yen) | NUMBER | VALUE (Yen) | NUMBER | VALUE (Yen) | NUMBER | VALUE (Yen) |
| 1905 | 13,977,655 | 155,579,340 | 14,864,731 | 173,504,789 | 11,891 | 382,076 | 72,461 | 6,248,159 |
| 1910 | 15,551,866 | 204,980,447 | 16,254,843 | 214,260,642 | 23,076 | 709,660 | 181,362 | 13,284,458 |
| 1915 | 19,366,000 | 252,862,000 | 19,378,000 | 252,932,000 | 22,468 | 933,462 | 148,512 | 10,361,002 |

POSTAL SAVINGS DEPOSITS

| YEAR | DEPOSITORS | AMOUNT (Yen) | PER CAPITA (Yen) | DEPOSITORS PER 100 OF POPULATION |
|------|------------|--------------|------------------|----------------------------------|
| 1905 | 4,929,189 | 41,801,386 | 8.48 | 10.39 |
| 1910 | 10,952,641 | 127,112,097 | 12.64 | 19.65 |
| 1915 | 12,928,005 | 202,782,687 | 15.68 | 23.10 |

graph Convention seven years later, and in 1883 she became a member of the International Union for the Protection of Submarine Cables. At the end of 1915 there were in Japan 108,470 miles of overhead wire, 2,223 miles of underground, and 14,688 miles of submarine cable. Morse instruments are everywhere in use throughout Japanese circuits. The accompanying table shows the development of Japanese telegraphs during the past fifteen years.

As to *Cables* it may be said that the service has shown remarkable development in recent years. A cable was laid to Korea in 1882, the points of connection being Nagasaki and Fusan by way of the island of Tsushima, and the service was under the auspices of the Great Northern Telegraph Company to which was granted a charter for thirty years. After the annexation of Korea it was deemed inexpedient to have the service in foreign hands and the rights were amicably transferred to Japan for a consideration of Yen 160,000, the portion between Nagasaki and Hizen having been transferred in 1891 for Yen 85,000. At the same time additional

service to Shanghai, and further negotiations were opened with the Great Eastern Telegraph Company, as well as the Danish company and China and Russia, for an improved service to Siberia. Work on this is soon to proceed.

In *Wireless Telegraphy*, too, Japan has shown rapid development. At first the service was confined to the Army and Navy, but in 1906 Japan despatched her first delegates to the International Wireless Conference at Berlin and in 1908 she became a member of the International Wireless Union, which act was ratified and promulgated by Imperial Ordinance in June of the same year. By March, 1916, Japan had sixty-four Government and nine private wireless installations aboard steamers, with nine stations on shore. The shore stations have the latest equipment. (See table at foot of page.)

TELEGRAPHS

| YEAR | OFFICES | LINES | WIRES | MESSAGES | WIRELESS |
|------|---------|--------------|---------------|------------|----------|
| 1905 | 2,600 | 19,753 miles | 92,860 miles | 23,772,950 | ..... |
| 1910 | 3,951 | 23,433 miles | 103,885 miles | 28,185,955 | 7,817 |
| 1915 | 4,936 | 26,255 miles | 125,651 miles | 33,750,481 | 36,057 |

| STATION | METRE VIBRATION | POWER (Kilowatts) | TRANSMISSION DISTANCE |
|-----------------|-----------------|-------------------|----------------------------|
| Ochiishi..... | 300:600:1800 | 7 Quenched spark | Day 600; Night 1,800 miles |
| Choshi..... | 300:600:1800 | 7 Quenched spark | Day 600; Night 1,800 miles |
| Shiozaki..... | 300:600:1800 | 3 Quenched spark | Day 400; Night 1,100 miles |
| Tsunoshima..... | 300:600:1800 | 4 Ordinary spark | Day 400; Night 1,000 miles |
| Osezaki..... | 300:600:1800 | 7 Quenched spark | Day 600; Night 1,800 miles |
| Shimotsui..... | 300:600:1800 | 4 Quenched spark | Day 300; Night 1,000 miles |
| Rasa..... | 300:600:1800 | 3 Quenched spark | Day 450; Night 1,300 miles |
| Cape Fuki..... | 300:600:... | 4 Ordinary spark | Day 450; Night 1,200 miles |
| Dairen..... | 300:600:... | 7 Ordinary spark | Day 500; Night 1,300 miles |



CONSTRUCTING A RIVER EMBANKMENT

The Choshi and Osezaki stations are under reconstruction, after which they will be capable of transmission to a distance of 1,500 nautical miles by day and 3,000 by night. The Funabashi station, which belongs to the Imperial Navy, is also open for public service, and can communicate with Hawaii and the South Sea Islands, being the most powerful station in Japan.

The following table affords an interesting and instructive comparison between the

ordinary and the wireless service in Japan during three recent years:

| YEAR | ORDINARY TELEGRAMS | | | WIRELESS | | |
|------|--------------------|------------|----------|----------|------------|----------|
| | DOMESTIC | FOREIGN | | DOMESTIC | FOREIGN | |
| | | DESPATCHED | RECEIVED | | DESPATCHED | RECEIVED |
| 1914 | 33,025,000 | 312,000 | 351,000 | 30,089 | 4,058 | 665 |
| 1915 | 32,876,000 | 342,000 | 393,000 | 31,233 | 4,307 | 767 |
| 1916 | 32,898,000 | 320,000 | 368,000 | 31,676 | 4,381 | 678 |



HODZU RAPIDS, NEAR KYOTO

TELEGRAPH AND TELEPHONE RATES AND REVENUE

DOMESTIC telegrams are sent in the *kana* syllabary, the rate being 20 sen for the first 15 syllables and 5 sen for every 5 syllables or less over that number; but for telegrams within the same city or postal area the rate is reduced to 10 sen and 3 sen respectively for the same number of syllables, the address in either case being free, except that of the sender, and a reply may be prepaid accordingly. Telegraph messages may also be sent in Roman letters at the rate of 25 sen for the first 5 words or less, and 5 sen for each additional word; but for telegrams within the city the rate becomes 15 sen for the first 5 words and 3 sen for each word added, the word limit being fixed at 15 letters, excess of this being reckoned as one word up to another 15 letters unless more than one word is included. In groups of Arabic figures 5 or less count as one word, and in codes the maximum for words is 10 letters. Urgent telegrams, which take precedence to ordinary messages, may be sent at three times the ordinary rate. Express telegrams may be sent to be forwarded from the last post office by post or special courier at the rate

of 7 sen for postage and 20 sen for a messenger within a radius of 8 miles, and 25 sen for each additional $2\frac{1}{2}$ miles. The rate for telegrams to Formosa or any of the Japanese colonies in the native syllabary is 30 sen for the first 15 syllables and 5 sen for each additional syllable or less, while messages in Roman letters are 40 sen for the first 5 words and 5 sen for each additional word.

The first *Telephone service* was opened in Japan in and between Tokyo and Yokohama in 1890, and a long-distance service was inaugurated seven years later, extending to Osaka, 350 miles away. At first the development was slow, as the Japanese did not appear to appreciate the convenience of such means of communication, and special pains had to be taken by the authorities to invite the interest of subscribers. It was not long, however, before the demand for telephones was much greater than the Government could supply, and even still the number of applications for installations is many thousands more than the officials can overtake

At the end of March, 1915, the demand in excess of supply was 140,000, and several thousand more applicants have been added since. As each applicant has to deposit 15 yen with his application the Government is enabled to have the use of over 2,000,000 yen a year without interest, while telephone brokers do a large and questionable business by securing premiums from applicants willing to pay from 400 to 800 yen for transfer of privilege for prior installation. The Government in 1909 started the custom of putting in telephones first for those willing to pay premiums of from 150 to 185 yen. Indeed, this aspect of the telephone business in Japan amounts to a public scandal, made possible only because the business is a Government monopoly, as any private company would fill the applications in short order. The annual fee for telephone connection is 36 yen as a minimum, the maximum charge being 66 yen according to place. Automatic stations are situated at convenient places along the streets in cities, where messages may be sent by dropping 5 sen in the slot. The exchanges are served by girls, as abroad, and the wages are scarcely sufficient for support. But the telephone in Japan, like the post office, is a money-making institution for the Government, and every interest has to be subservient to that end. While profits from such public utilities in other countries where they are monopolies are usually small, in Japan they are large, and in the post



A BUSY SCENE ON A RIVER

office department the profit is especially large. The first table below will illustrate the growth of Japan's telephone activity during fifteen years at intervals of five years.

The total of Japan's revenue and expenses from posts, telegraphs, and telephones for fifteen years at intervals of five years may be seen from the following tables:

III. ROADS, RIVERS, AND BRIDGES

In old Japan the building of roads and bridges was not encouraged, particularly in the vicinity of boundaries between daimyo dominions, where access was blocked or rendered uninviting by barriers for the strict examination of travellers. With the opening of the country to modern ways the new Government undertook the promotion of

TELEPHONES

| YEAR | OFFICES | AUTOMATIC | LINES | WIRES | EXCHANGES | APPARATUS | SUBSCRIBERS | MESSAGES |
|------|---------|-----------|-------|---------|-----------|-----------|-------------|---------------|
| 1905 | 197 | 143 | 3,285 | 137,558 | 374 | 37,160 | 35,528 | 150,171,687 |
| 1910 | 1,141 | 382 | 5,887 | 269,238 | 1,454 | 141,895 | 102,626 | 423,339,467 |
| 1915 | 2,404 | 679 | 7,445 | 539,992 | 3,135 | 234,988 | 211,540 | 1,045,042,902 |

RECEIPTS

| YEAR | ORDINARY MAIL | PARCELS | MONEY ORDERS | SAVINGS DEPOSITS | TELEGRAMS | TELEPHONES | TOTAL |
|------|------------------|-----------|-----------------|---------------------|------------|------------|------------|
| | Yen | Yen | Yen | Yen | Yen | Yen | Yen |
| 1905 | 16,285,000 | 2,430,000 | 1,216,000 | 31,000 | 8,873,000 | 3,111,000 | 31,859,000 |
| 1910 | 20,417,000 | 3,369,000 | 1,439,000 | 220,000 | 8,914,000 | 9,117,000 | 43,479,000 |
| 1915 | 23,747,000 | 3,893,000 | 1,676,000 | 551,000 | 10,281,000 | 14,759,000 | 54,908,000 |

EXPENSES

| YEAR | ORDINARY MAIL | PARCELS | MONEY ORDERS | SAVINGS DEPOSITS | TELEGRAMS | TELEPHONES | TOTAL |
|------|------------------|-----------|-----------------|---------------------|-----------|------------|------------|
| | Yen | Yen | Yen | Yen | Yen | Yen | Yen |
| 1905 | 7,767,000 | 2,090,000 | 673,000 | 849,000 | 5,985,000 | 1,179,000 | 18,545,000 |
| 1910 | 9,793,000 | 2,692,000 | 700,000 | 1,303,000 | 6,279,000 | 2,136,000 | 22,605,000 |
| 1915 | 10,486,000 | 2,916,000 | 741,000 | 1,492,000 | 7,170,000 | 3,585,000 | 26,392,000 |



A JAPANESE BRIDGE OF THE OLD STYLE, AT SHIMOGAMO

road construction as far as possible, though as yet this side of Japan's development has not at all kept pace with her progress in other directions, and the roads of the nation are in a poor way compared with other countries, most of them being not only ill-made but too narrow for modern vehicles. The roads of Japan are divided into three classes: national, provincial, and village roads. The national roads are those leading from the capital to the open ports, the Grand Shrine at Isé, the headquarters of the army divisions, naval stations, and prefectural offices, including connecting roads. The width of national roads must be eighteen feet, or forty-two feet between banks or fences. Provincial roads are those leading from the prefectural offices to the district offices, or those connecting towns and busy ports. Such highways must be from twenty-four

to thirty feet wide. The village roads connect the minor sections of districts or lead to local shrines or temples. There is no regulation as to width, and many of these roads are mere paths. Expenses for the upkeep of national and provincial roads have to be borne by the Prefectural Treasury, while the various towns and villages are responsible for the repair of the roads and paths concerning them. The total mileage of national roads is 6,436.8; provincial roads, 22,936.63, and village roads have a mileage of 267,699.3. Owing to the enormous number of streams in Japan bridges and culverts exceed in number those of most other countries. On the above mileage of roads there are no less than 312,761 bridges, of which 267 are of iron, 66,639 of stone, 132,265 of wood, and the rest are of earth or are pontoon bridges. The average annual expenditure

on roads in Japan is about 15,000,000 yen, and some 4,000,000 yen is spent on bridges, the total, including sundry engineering expenses, coming to over 22,000,000 yen annually. The aggregate of expense for engineering operations in connection with roads, bridges, rivers, and riparian work is over 43,000,000 yen a year.

The rivers of Japan require a great deal of attention and expense, owing to frequency of floods. During the last 1,300 years there have been some 426 destructive inundations, or one every three years, with consequent entailment of enormous outlay on dredging of waterways and repairing of embankments. One of the most destructive of these floods occurred in 1896, causing damage to the extent of 138,000,000 yen, though the flood of 1910 was scarcely less destructive. Losses of human life from floods during the past thirty-five years have totalled 23,677 persons. By the River Control Law of 1896 the Government attempted to make a determined effort to provide still greater safeguards against destructive floods by a system of hydraulic engineering, each local government being responsible for the streams under its jurisdiction, the State to assist in cases manifestly too expensive for local finance. Since then 25 rivers and 36 tributaries have received attention at an average annual outlay of about 3,000,000 yen by the Government and some 10,000,000 by prefectures, the total last reported being 12,840,568 yen for the year. To avoid further devastation from floods the authorities are pushing riparian schemes to completion with great expedition. At present 65 rivers are included in the Government's plans, of which 20 are to be finished in 18 years' time at a cost of 180,000,000 yen, for which the sum of 10,000,000 yen is to be set apart annually, with a further equal amount to be expended for the prevention of landslides.





THE ADMINISTRATION OFFICES OF THE IMPERIAL GOVERNMENT MONOPOLIES BUREAU, TOKYO

XLVI. GOVERNMENT MONOPOLIES

THE TOBACCO MONOPOLY—THE SALT MONOPOLY—THE CAMPHOR MONOPOLY—THE OPIUM MONOPOLY—COMMERCIAL NOTICES

THOUGH the Imperial Government of Japan engages in numerous undertakings, such as conducting a printing bureau, military and naval arsenals, steel works, dockyards, woollen mills, and State railways, to say nothing of telegraphs and telephones, only tobacco, salt, camphor, and opium are called Government monopolies. Of course, telegraphs and telephones must be regarded as Government monopolies in the most absolute sense, since no private lines are suffered to exist, much to the inefficiency of the service and the constant inconvenience and complaint of the public. The same may be said of the State railways, as private lines can not be constructed without Government permission, which is never given except for light railways and then only when there is no possibility of competition with Government lines. Many applications for the building of railways are rejected annually, and the respective districts thus deprived of railway service, because the utility is a national monopoly. Recently the Government refused permission

to a private company to construct an electric railway between Tokyo and Osaka, which would tap much new territory, simply for the reason that the contemplated line would afford more rapid transit than the State lines to the south, and thus result possibly in some loss of revenue to the Government. In spite of the enormous sums annually expended on railway extension and improvement, the public is loud in complaint against the inadequacy and inefficiency of the service. Freight constantly lies piled up to congestion at way stations, and passengers have to stand during a whole journey for want of proper accommodation.

In respect to industrial monopolies such as weaving and steel manufacture, the Government pursues quite a different policy, encouraging every possible competition. It is clear that the authorities entertain a double purpose in their adoption of monopolies and State undertakings. Primarily the motive was for administrative expediency and the improvement of nascent industries by providing models, a secondary motive

being to increase national revenue. In most cases, however, the motives have been taking a reversed order, and considerations of increased revenue have predominated. The list of Government enterprises was comparatively unimportant up to the year 1891 when there was a remarkable and sudden increase, and the policy was further emphasised after the war with China in 1895, actuated by a desire for increased revenue. But the establishment of the Government steel works at Wakamatsu in 1897 was not so much a profit-making venture as to inaugurate the home manufacture of ship-construction material and render the nation independent in time of emergency. The steel works, however, which was started at an outlay of 37,000,000 yen, to which 12,000,000 yen more was added in 1911, have been running at a loss, the total of which already amounts to 1,500,000 yen. The tobacco monopoly, which came into force in January, 1898, was obviously for reasons of revenue. The camphor monopoly was adopted in the same year, ostensibly to



T. KANO, DIRECTOR GENERAL OF THE IMPERIAL JAPANESE GOVERNMENT MONOPOLIES

protect the industry in Formosa, but doubtless in reality for financial reasons as well. After the close of the war with Russia the tobacco monopoly was extended and made complete over the cultivation of the plant. In July, 1904, the manufacture of cigars and cigarettes was included, and in April, 1905, cut tobacco was made a Government undertaking. Salt became a Government monopoly in June, 1905, in spite of the protests of the public, which have ever since continued. The monopoly has added much to the Imperial Treasury, even if the people have had to pay more for one of the prime necessities of life. Salt monopoly is known in Japan as one of the three bad taxes, the other two being the taxes on transit and textiles.

The three monopolies of salt, tobacco, and camphor are directly under the Department of Finance, and are managed by the Government Monopoly Bureau, while opium is confined to Formosa and is under the jurisdiction of the colonial administration there. But salt and tobacco, as well as camphor, are carried on as monopolies in Formosa as well as in Japan, and salt, ginseng, and tobacco in Korea as well. As the monopoly statistics for the three different fields of operation are kept separately by the Government, and only those for Japan proper are in any degree adequate as to details, it is difficult to cover this side of the subject in a satisfactory manner. It may be mentioned further that after Japan concluded peace with Russia without indemnity in 1906, a considerable increase of revenue was imperative, to obviate which the seventeen private railway lines of the Empire, representing

some 2,823 miles, were nationalised at a cost of 484,639,584 yen and the railway business made a separate financial venture, now bringing in a profit of some 60,000,000 yen a year. Thus from State undertakings and monopolies the Government has greatly increased its annual revenue, though the general opinion in Japan is that the national income has been enhanced at the expense of efficiency in public service. The country pays more for an inferior service than it did under private auspices for a superior one, especially in regard to public utility industries. The following figures represent a comparative table of profits for the three Government monopolies in Japan proper for the last ten years:

PROFITS ON MONOPOLIES

| YEAR | PROFITS ON TOBACCO MONOPOLY | PROFITS FROM SALT MONOPOLY | PROFITS FROM CAMPHOR MONOPOLY | TOTAL |
|------|-----------------------------|----------------------------|-------------------------------|------------|
| | Yen | Yen | Yen | Yen |
| 1907 | 35,607,902 | 13,297,846 | 278,225 | 49,183,973 |
| 1908 | 49,304,569 | 11,892,826 | 221,714 | 61,419,149 |
| 1909 | 47,267,571 | 11,134,120 | 47,691 | 58,449,382 |
| 1910 | 50,936,126 | 11,060,131 | 93,317 | 62,089,574 |
| 1911 | 51,315,884 | 11,840,312 | 179,903 | 63,326,099 |
| 1912 | 55,630,888 | 10,254,805 | 129,825 | 66,015,518 |
| 1913 | 58,649,647 | 10,570,894 | 76,882 | 69,597,423 |
| 1914 | 50,021,995 | 4,796,475 | 230,775* | 54,697,115 |
| 1915 | 60,167,986 | 10,773,575 | 72,308 | 70,913,869 |
| 1916 | 58,802,746 | 8,951,330 | 49,248 | 67,803,330 |

* Loss

As to monopolies in the colonies, Korea makes about 2,500,000 yen a year on tobacco, 500,000 on salt, and 1,000,000 on ginseng; while in Formosa profits on the salt monopoly amount to about 2,000,000 yen a year, on tobacco about 4,000,000 yen, and on opium some 6,000,000 yen, with about 6,000,000 more for camphor.

THE TOBACCO MONOPOLY

THE tobacco plant was first brought to Japan by the Spanish from Manila in the middle of the sixteenth century, not very long after it had been introduced into Europe. The Japanese in Nagasaki, where the weed first appeared, took to the smoking habit with zest, and some years later (about 1592) steps were taken to introduce the cultivation of the plant. In the time of the early Tokugawa shoguns, however, the smoking habit came to be recognised as an evil threatening the health of the nation, and the authorities in Japan, like the worthy King James of England, expressed the opinion that turning the human mouth into a smoke funnel was as useless as well as a filthy habit, unbecoming a civilised people. Consequently

a ban, which continued from 1609 to 1615, was placed on the importation and cultivation of tobacco, when the habit of its use was found to have become so ingrained in the people that they could not abandon it, the ban being more observed in the breach than the observance; and finally the prohibition was removed. Indeed, Japan still looks upon the tobacco habit as being as inveterate as the social evil, and regulates its quality and sale much in the same way.

The first devotees of the weed in Japan smoked a cigar introduced by the Portuguese, but it was not long before the pipe was adopted and preferred. The first vendors of tobacco did not sell it cut and ready for use, nor yet in figs, but in the dry leaf, the smoker

being obliged to take it home and cut it for himself. The business so developed that dealers began to adapt themselves to the demand of the times and offered to cut all tobacco purchased from them. By the middle of the seventeenth century tobacco smoking became universal in Japan, and it still is so. Wherever one goes, even to the remotest section of the Empire, the pipe and the cigarette are in evidence among all classes and both sexes, though, needless to say, it is more common among men. The diminutive pipe, holding but a pinch, three pipefuls making a smoke, is fast giving way to the cigarette of the Monopoly Bureau, of which there are various brands representing as many qualities. Foreign pipes and cigars are used by a few only. The Japanese may be regarded as among the most inveterate smokers of the world, though the quantity and strength of the tobacco consumed can not be said to compare with consumption in Western countries. The native pipe is comparatively harmless and the weed in the native cigarette is much milder than foreign tobacco. The annual consumption of tobacco in Japan is on the increase and soon the mind of the nation will



A TOBACCO FARM

be as much under the influence of nicotine as are some Western countries. How far this may militate against the interests of the Japanese race is for scientists to say. There is no doubt that it is already making its effects felt on the mental development of the young. If a boy is behind his classmates in the public schools of Japan, it may usually be attributed to the cigarette habit.

For the first three hundred years after the introduction of smoking most of the tobacco consumed in Japan was grown at home, but with the opening of the country to foreign trade at the beginning of the Meiji period, large imports arrived from abroad in the shape of cigars, cigarettes, and cut tobacco. Foreign manufactures soon saw in Japan an excellent field for enterprise, and in time the Government decided that if the tobacco business was going to prove so profitable it might as well be used to increase the revenue of the State. Moreover, the foreign dealers were instilling in the people a taste for the strong tobacco of the West; and the quality used should be supervised by proper authority. Accordingly, in 1896, the business was declared a Government monopoly and put into operation in 1898 by buying up the native and foreign tobacco factories, the regulations being revised in 1891. During the first six or seven years of the monopoly the profits did not exceed 7,000,000 yen annually, but by 1903 they arose to 15,000,000 yen, and now they amount to nearly 60,000,000 yen a year.

The most important centres of tobacco cultivation in Japan are around Kokubu in the Province of Satsuma, Nagasaki in Hizen, Yoshino in Yamato, and Hatano in Sagami. Lovers of the weed profess to find quite a different flavour in the leaf produced in each

| YEAR | AREA CULTIVATED | PRODUCTION | COST | VALUE OF IMPORTED TOBACCO | PROFITS ON SALE OF MANUFACTURED TOBACCO |
|------|-----------------|-------------|------------|---------------------------|---|
| | Acres | Pounds | Yen | Yen | Yen |
| 1906 | 81,985 | 94,907,501 | 8,166,922 | 1,595,100 | 33,602,057 |
| 1911 | 60,933 | 73,894,326 | 8,091,569 | 44,856 | 51,315,884 |
| 1916 | 90,327 | 105,279,158 | 14,116,612 | 789,297 | 58,802,746 |

of the districts named, while foreign tobacco to the Japanese taste is also very different, and even repugnant to some native smokers. On the other hand foreigners, as a rule, have no relish for Japanese tobacco. The native tobacco, however, is of fair quality, and yellow American varieties are also cultivated. The Monopoly Bureau imports all kinds of foreign tobacco, some of which is made up into cigars, cigarettes, and cut tobacco and some is mixed with the native leaf to represent the various brands sold by the Bureau. The native leaf is pulverized to look like brown hair and sold for use in the tiny metal pipes used by the Japanese. The bowl and mouthpiece of the native pipe are of metal, connected by a bamboo stem which is changed, when it becomes too strong, by a pipe-cleaner, who goes his daily rounds shouting his services along the street. The Government supervises the cultivation of the plant in the fields as well as the varieties selected for manufacture, the farmers being obliged to sell all the crop to the Monopoly Bureau for a fixed price. The Monopoly Bureau now has 23 well equipped factories in various centres throughout the Empire, some of the finest being in Tokyo and Osaka, where millions of cartons of cigarettes and cut tobacco are turned out annually, but

very few cigars. The work is done mostly by girls, and the total output in cigarettes is about 7,000,000,000 a year. There are some fifty offices of the Monopoly Bureau throughout the Empire for the supplying of retail dealers with tobacco. The duty on imported tobacco is now 250 per cent, which, of course, is prohibitive, though there is a good deal of smuggling. The table below shows the amount and value of tobacco handled by the Monopoly Bureau every five years during the last fifteen years.

In addition, there are some 70,000 acres under tobacco cultivation in Korea, which bring in an annual revenue of about 2,500,000 yen, while in Formosa the annual output is about 2,000,000 pounds, valued at over 7,500,000 yen.

THE SALT MONOPOLY

In Japan salt refining is an industry of great antiquity and much importance. One

learns from Japanese history that in ancient times an inland enemy could be exhausted by being deprived of access to the sea, and thus cut off from a supply of salt, and one of the most famous heroes of the nation obtained an immortal reputation for magnanimity by allowing non-combatant enemies to have salt in time of war. The salt is produced almost exclusively from the evaporation of brine, rock salt being very rare. Throughout the Empire generally the process is carried on by artificial heating, but in Formosa and other latitudes of high temperature evaporation is left to the sun's rays. The Japanese method of salt refining has remained unchanged for ages and consists of building a low circular wall on the foreshore where the sea water is retained until it partially evaporates, after which the mixture of brine and sand is removed and the process of evaporation completed in pans over a fire. The districts along the Inland Sea of Japan form the main centres of production. In Japan proper salt has been a Government Monopoly since 1905, but it has been a monopoly in Formosa since Japan's occupation of the island. As has already been mentioned, the salt monopoly has from the first been a constant theme of public opprobrium, owing to the increased price of



A TYPE OF SALT FIELD

the article. In the first year of application the profits of the monopoly amounted to 11,998,012 yen, and in 1908 to 24,652,674 yen, since when the annual profits have decreased on account of criticism compelling a reduction of price, and in 1917 the profit from salt reached only 8,951,336 yen on an output of over one billion pounds. The Government has model salt refineries at various places, the most important being those at Chiba and Hiroshima. The accompanying table gives the details of salt production and sale in Japan at intervals of five years during the last fifteen years.

The annual production of salt in Formosa is 240,000,000 pounds, of which about 180,000,000 pounds are brought to Japan; and in Korea there is a yearly output of 325,000,000

pounds, all of which is consumed in the peninsula, while the production of salt in Japan's leased territory of Kwantung is about 136,407,900 pounds annually. The value of the salt produced in the colonies and the profits on sales thereof are not given in any official statistics available. It is safe, however, to conclude that the profits are at least equal to those on the same quantity of salt in Japan proper.

THE CAMPHOR MONOPOLY

ORIGINALLY the camphor monopoly applied only to Formosa, where the great camphor forests are, but the price of the article was so greatly influenced by development of the manufacture of camphor in Japan proper that the monopoly was extended in 1903 to the

whole Empire. The amount produced in Japan is still insignificant, however, as compared with the output in Formosa, and since the main object is to increase the industry in the island colony, there has been little progress in the rest of the country, the profits amounting to scarcely over 50,000 yen a year, while in Formosa the profits reach nearly 6,000,000 yen. As to the progress of camphor cultivation and manufacture in Formosa, it will be found partially treated in the chapter on that island in this volume; but it may be added in this connection that the Monopoly Bureau is pursuing a policy of extensive afforestation in camphor trees in Formosa, more than half a million having already been set out, replanting some 3,000 acres. The plans of the Government, however, contemplate the reafforestation of some 50,000 acres by the year 1923, at an outlay of some 50,000 yen annually. The great importance of camphor afforestation will be seen when the rate at which mature trees are being felled is borne in mind, as well as the fact that the camphor tree does not yield well before the age of 60 years. Trees of not less than 100 years of age now number something below 12,000,000, the forest resources in sight being

SALT MONOPOLY PRODUCTION AND PROFITS

| YEAR | AREA OF SALT-PANS | ANNUAL PRODUCTION | VALUE | PROFITS |
|------|----------------------|----------------------|------------|------------|
| | Acres | Pounds | Yen | Yen |
| 1906 | 20,483 | 1,255,081,644 | 9,718,062 | 11,998,012 |
| 1911 | 15,233 | 1,261,589,367 | 10,243,485 | 11,060,131 |
| 1916 | 14,765 | 1,357,569,164 | 11,904,123 | 8,951,336 |

equal to a yield of about 33,000,000 pounds of crude camphor and 24,000,000 pounds of camphor oil. Japanese chemists are experimenting at trying to extract camphor from the twigs and leaves of the camphor tree, but so far without much success.

Japan now supplies about one-half of the 10,000,000 pounds of camphor annually consumed by the world, nearly all of it coming from Formosa. In production of camphor Japan's only rival is southern China, but the quality obtained there is very crude. Some years ago Japan thought that she would be able to command the camphor markets of the world, especially as the substance was coming into increasing use in the manufacture of celluloid, rubber goods, balls, and combs, as well as in the manufacture of gunpowder and medicine, but the appearance of synthetic camphor altered the prospects considerably. Experiments, too, have shown that the camphor tree can flourish in numerous other countries, though it will take years yet for plantations to reach the yielding age. For some time yet Japan will, therefore, remain the main source of supply. The conditions prevailing in Formosa when Japan took over the island from China necessitated the serious attention of the Government, as the Chinese had been most reckless in cutting down camphor trees, and the value of the forests was gravely impaired. Some of the more productive regions, too, were in possession of the savage tribes of the island, and work could not be undertaken without military protection. The



CAMPBOR MANUFACTURING WORKS

number of reforms carried out and the great improvement inaugurated in the extracting of camphor would be too numerous to mention.

The Monopoly Bureau used to dispose of its camphor in foreign markets through the British firm of Messrs. Samuel & Samuel, which has branches in the Far East, but in 1908 the Government became its own agent, and now Japan conducts the business in London on her own account or through the Mitsui Company.

The table on the next page gives the production and value of camphor in Japan proper at intervals of five years for fifteen recent years.

In Formosa the annual production of crude camphor is about 4,500,000 pounds, valued at 1,463,000 yen; and of crude camphor oil 6,288,876 pounds, valued at about 1,100,000 yen, the total profits in 1916 being 5,808,000 yen.

THE OPIUM MONOPOLY

THIS monopoly is confined altogether to Formosa as the use of the drug for any but medical purposes is prohibited in Japan proper. The subject will be found treated from an administrative point of view more fully in the chapter on Formosa elsewhere in this volume. The monopoly was undertaken professedly for the purpose of controlling the victims of the opium habit of whom there were immense numbers when the colony came under Japan's jurisdiction. The policy of the Government has been gradually to reduce the number of smokers until the habit is completely eradicated on the island. Every habitual user of opium was required to prove the fact and then take out a license for the consumption of the drug. It was supposed that if no licenses were issued to new applicants after the total number of users were so supplied that in time the number would naturally decline as the older victims died off. It was decided to establish a factory under Government control for the manufacture of opium doses, as the Chinese had done, with, however, certain important improvements. As a result



ONE OF THE MACHINE AND WORK ROOMS, IMPERIAL TOBACCO MONOPOLY



CIGARETTE-MAKING MACHINES, IMPERIAL GOVERNMENT MONOPOLY

of the policy of gradual prohibition which came into force in 1896 the number of licensed opium smokers has decreased from 169,064 in 1900 to some 75,000 at present. In 1906 the amount of opium imported by the authorities was 446,667 pounds, at a cost of 3,371,789 yen, from which a profit of 4,205,830 yen was made. At present the annual value of imports of opium is 2,190,897 yen, which is made into something over

| YEAR | FAMILIES ENGAGED | CRUDE CAMPHOR | | OIL OF CRUDE CAMPHOR | | TOTAL VALUE | PROFITS |
|------|------------------|---------------|---------|----------------------|---------|-------------|-----------|
| | | Pounds | VALUE | Pounds | VALUE | | |
| | | | Yen | | Yen | | |
| 1906 | 1,564 | 800,576 | 329,916 | 870,084 | 189,417 | 519,334 | 1,163,826 |
| 1911 | 2,615 | 1,405,791 | 587,044 | 2,217,766 | 477,350 | 1,064,390 | 179,903 |
| 1916 | 3,211 | 1,487,816 | 626,780 | 2,636,392 | 566,787 | 1,193,568 | 49,248 |



SECTION OF THE MITSUBISHI BUILDING WHERE OFFICES OCCUPIED BY THE DAI NIPPON ENGYO KABUSHIKI KAISHA (DAI NIPPON SALT CO., LTD.) ARE LOCATED

3,000,000 ounces of the drug and sold at a profit of something over 6,000,000 yen; but in recent years the statistics as to profits and sale of opium officially published have not been very definite.

THE DAI NIPPON SALT COMPANY, LIMITED

This great company, known under its Japanese title as the Dai Nippon Engyo Kabushiki Kaisha, is associated with the Taiwan Engyo Kabushiki Kaisha, in handling the bulk of the salt trade of Japan. It was organised in September, 1903, with the comparatively small capital of Yen 50,000, which has since been increased at different times to the large figure of Yen 4,950,000 at which it stands to-day. The company is entirely engaged in the production of salt, which is collected at Kantoshu, South Manchuria, and there is refined and treated for sale in the markets of Japan and elsewhere. The annual production is over 150,000,000 pounds. Mr. Kenichi Fujita is President of the Dai Nippon Engyo and also of the Taiwan Engyo. The other principal officers of the company are: Direc-

tors, Messrs. Rinsaburo Imanishi, Matakichi Ida, M. Hamada, Eizo Nagasaki, Seizo Matsubara, J. Aoki, I. Furuki, Kihei Miwa, K. Watanabe, K. Usami, and Mr. Kato. The head office of the company is at No. 30 Kambu-dori, Dairen, with branches at Tokyo and Kobé.

THE TAIWAN ENGYO KABUSHIKI KAISHA

ASSOCIATED with the Dai Nippon Engyo Kabushiki Kaisha is the Taiwan Salt Company, Limited, which was established in March, 1909, as a limited liability concern with a capital of Yen 3,000,000. This company is a selling organisation, and does not manufacture salt. The product is principally imported from Taiwan (Formosa), and is refined and put on the market. Mr. Fujita is Managing Director and the Board also comprises Messrs. Hatasaburo Hanai, Kihei Miwa, Yoshio Kawai, Torataro Kira-mori, I. Furuki, I. Aoki, Kunji Usami, and Hoji Isemura. The head office of the company is at No. 1, Yuraku-cho Itchome, Kojimachiku, Tokyo, and there is a branch office at No. 1, Higashi Kawasaki-machi, Kobé.



A BUSY SCENE AT THE FERRY, KARATO-MACHI, SHIMONOSEKI

XLVII. CITIES OF MOJI AND SHIMONOSEKI

SITUATED on pleasant sites just opposite each other, the two cities of Moji and Shimonoseki may be conveniently considered under one heading. At the extreme south of the main island of Japan runs the narrow strait that separates Honshu from Kyushu, opening the way into the beautiful Inland Sea. On either side of this charming stretch of water stand the cities of Moji and Shimonoseki, the former on the Kyushu side and the latter in Honshu. Being ports of call for steamers coming from China and the southern route, all travellers have to pass through this strait and no doubt the two cities are already familiar to many readers. The two places have always been important stations between the ferry landings for travellers proceeding from one island to the other, but it is only in recent years that they have attained to importance in foreign trade and sea communications.

Shimonoseki is situated along the shores of the Hayatomo Channel, protected from high winds by lofty hills on the north, while to the westward lies Hiroshima Island, serving to check the sea breaking in from the outside. The harbour is deep and commodious, though sometimes troubled by winds. As long as Shimonoseki was a mere ferry station it showed no remarkable growth, but after it became a port of departure for China and Korea for the Imperial Government railways the place began to make rapid development. The present population of the city is about 73,000, which is fast increasing, though of late there has appeared a tendency for population to drift

toward the rival city across the strait. It remains, however, the chief port of departure for Korea.

The volume of trade passing through Shimonoseki has been showing a favourable increase in recent years, the total for the year being at present in the vicinity of 1,000,000 yen, while imports represent about 75,000 yen, as most of the imports enter Japan through Kobe or Yokohama. So long as the big liners of the Nippon Yusen Kaisha have a base there, as well as the numerous trawlers from neighbouring fishing grounds, the place will no doubt continue to hold its own. The fisheries are quite extensive, representing some 160 boats, employing nearly 2,000 hands and taking an annual catch valued at about 7,000,000 yen.

The city has the usual appointments of a Japanese town which has not yet approached the stage of complete modernisation. Some foreign firms have offices there, most of them British, and the city has a good foreign hotel. There are also the usual schools, city offices, and municipal government.

The environment of Shimonoseki is full of historic memories, as near by is the famous plain of Dannoura, extending along the highway leading to the town of Chofu, where was fought the great battle which resulted in the final overthrow of the Heike clan, the remnants of whom the Genji warriors forced over the cliff into the sea. The view from here, with the hills of Hino behind and the sea in front, is charming in the extreme. The big crabs found in these waters are known as Heike because of the semblance

of their backs to a human face, it being supposed that the drowned Heike warriors assumed this form of existence. In the disaster that befell the Heike clan the Emperor Antoku perished, and a shrine was erected at the foot of Mount Beni-ishi to the honour of the Imperial spirit, known as the Akamanomiya; and the tombs of the Heike leaders are in the same grove, though the inscriptions are now hardly legible. A peculiar feature of the annual festival at this shrine is the custom of having the proceedings opened by the gay ladies of the district, who march out in the picturesque robes of their calling, and after they retire the place is declared open to the public. The custom is said to have had its origin in the misfortune that befell the women of the Heike lords, who when left without protectors, had no resort but to become denizens of the gay quarters of the town, the citizens, however, treating them with great sympathy and respect owing to their unhappy lot, so that in spite of their calling they never lost their high social position, entitling them to be the first visitors to the shrine festival.

Near the mausoleum of the Emperor Antoku stands the Shumpanro Hotel, noted as the scene of the negotiations between Japan and China in 1895, bringing the war to a peaceful conclusion. The chairs used by Prince Ito and Li Hung-Chang are still preserved there. From this hotel a beautiful view of the picturesque neighbourhood may be had, including the mountain ranges of the Seto Channel. The Injouji Temple, where Li Hung-Chang stayed while in Shimonoseki,

and where he was treated by a surgeon after the attempt on his life by an assassin, is also in this vicinity, with pleasant views and surroundings. There are various other temples and shrines of historic or antiquarian interest for those who care for such things. Tsunakidani is a beautiful valley lying behind the city whence one gets an entrancing view of the mountains and the sea. As Shimonoseki is in a strongly fortified zone all photographing and sketching are strictly prohibited, and one of the misfortunes which frequently happens to the unwary visitor ashore is to have his camera confiscated.

Proceeding across the strait to Moji, one is in a city which in ancient times was regarded as the gateway to Kyushu, where all

travellers were carefully examined. During the middle ages it was no more than a small fishing village, but after the beginning of the Meiji era Baron Yasuba, the Governor of Fukuoka, began to promote the interests of the place as an important place of anchorage for ships and for trade purposes, and finally a harbour was constructed. In the thirty years that have since elapsed remarkable changes have taken place in favour of Moji, and it is now a close rival of Nagasaki as a port of call for steamers either to transfer passengers and freight or to coal. The present population of Moji is about 100,000, but it is growing so rapidly that soon it will become one of the greatest cities of Kyushu. In the past few years the rate of increase in

population has been much greater in Moji than in Kobé or Yokohama. Owing to its excellent harbour, quite protected by noble hills, Moji is well suited to accommodate shipping.

The growth and prosperity of Moji have been greatly fostered by the coal trade, there being an immense output from the mines of Kyushu, many of which are in this vicinity. Moji also rivals Nagasaki as the most important centre of distribution for Kyushu. The imports formerly going in through the more southern port have now been largely deflected toward Moji. Rice, which forms almost three-fourths of the stock in the Tokyo market, is nearly all exported through Moji, the volume amounting to more than



(Left) A. HILLS, Manager at Shimonoseki for Jardine, Matheson & Co., Ltd. (Upper) E. H. HOLMES, British Counsel at Shimonoseki. (Lower) H. SYKES THOMPSON, Manager at Shimonoseki for Samuel Samuel & Co., Ltd. (Right) R. MCKENZIE, Manager at Shimonoseki for Wuriu Shokwai (Holme, Ringer & Co.)



PROMINENT KYUSHU BUSINESS MEN

(Upper Row, Left to Right) Mr. SHIMPEI HIGASA, Managing Director, Kyushu Electric Wire Manufacturing Co., Ltd.—Mr. S. NAKAMURA, President, S. Nakamura & Co., Ltd.—Mr. S. SAWAYAMA, Vice-President, Nagasaki Chamber of Commerce. (Lower Row) Mr. K. AKIYAMA, Manager, Sugar Manufacturing Co. of Japan, Dairi—Mr. I. SUMIDA, President and Managing Director, Teikoku Brewery Co., Ltd.—Mr. K. NAGAMI, President, Eighteenth Bank, Ltd.

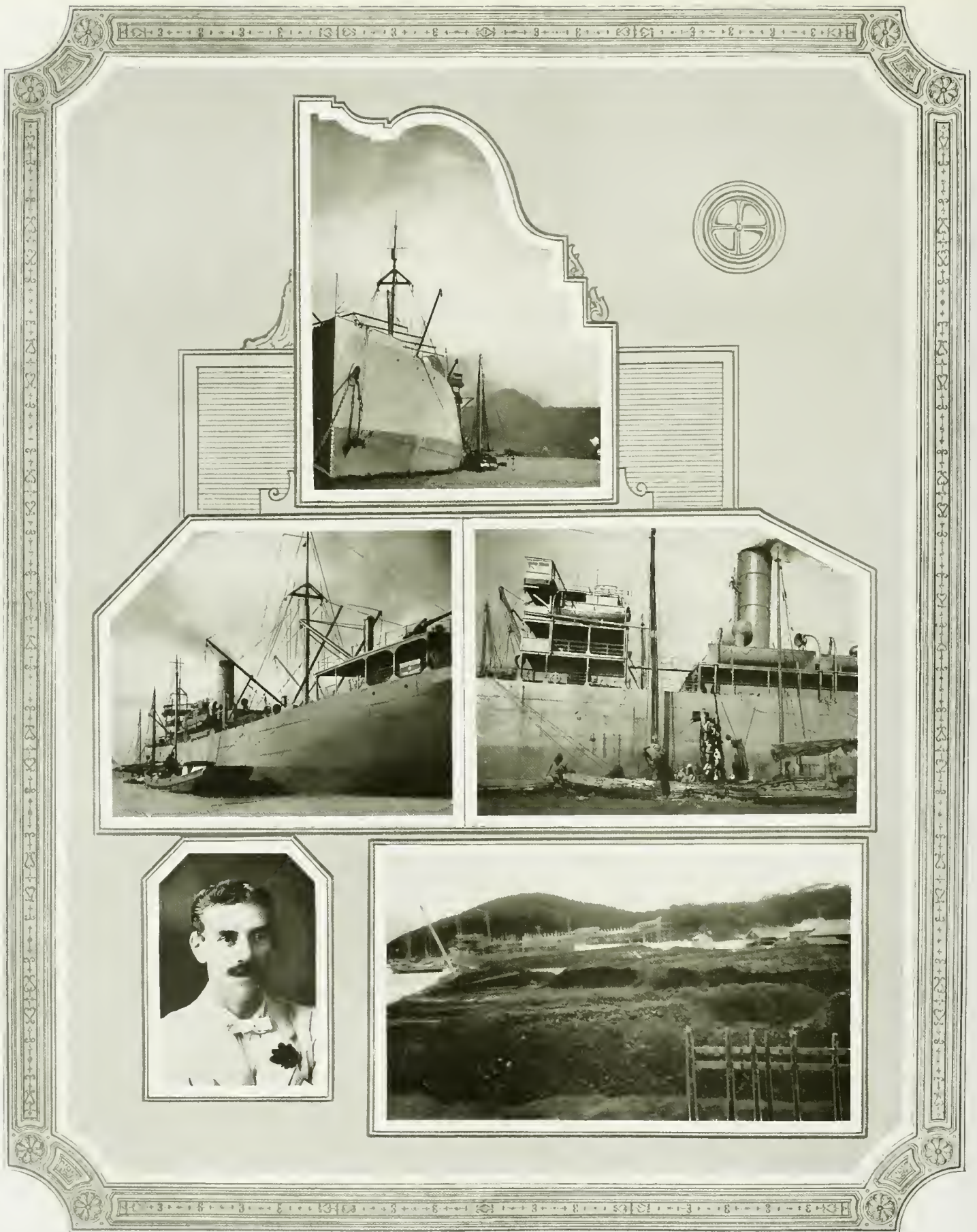
one million tons a year. Already this port has begun to attract the attention of the whole Empire as a centre of great commercial and industrial possibilities. Ten years ago the total of exports from Moji amounted in value to 15,469,415 yen, while imports totalled 18,703,121 yen, or an aggregate of 34,172,526 yen; and to-day the annual exports from Moji amount in value to 18,604,378 yen, with 23,200,794 for imports, or a total of 41,815,172 yen. Naturally the largest item in exports is coal, but refined sugar, cotton yarn and other staples are also large. Though the figures are as yet insignificant in comparison with Kobe and Yokohama, they nevertheless indicate what an important place Moji will continue to occupy in the commercial and industrial life of the nation. One of the most important industries of Moji is the making of cement.

The environs of Moji are not so rich in historic interest as those of Shimonoseki or even the average Japanese city, but the scenery, especially at the foot of Mount Sankaku, is picturesque, there being a park there presented by the late Emperor of Japan in memory of his visit to the city to review the troops, while on the summit of Mount Furuki stands a castle the possession of which in feudal days was frequently contested by rival daimyo. The place is now an important fortress in connection with the defences of the Inland Sea. On the Fudetate Hill is a shrine, known as the Koso Hachimangu, dating from 870 A. D. The stones paving the court are said to have been the anchors of tribute boats that came from Korea, while the image in the shrine is reputed to bear the armour worn by the Empress Jingo during her expedition to Korea.

Between Moji and Shimonoseki the Government ferry runs regularly, meeting all trains and making sharp connections, and the two cities form important bases for all travellers touring that part of the Empire.

SAMUEL SAMUEL & CO., LIMITED

THIS well known old house occupies a unique position in the foreign trade and commerce of Japan because, more than any other concern, it has always been in the closest relationship with the Japanese Government, and with the Governments of the Allied Powers. In the early days of foreign trade in Japan, Messrs. Samuel Samuel & Co. were practically the purchasing agents and financiers of the Imperial Government, their close connection with the London money market, and with influential circles generally through the agency of Messrs. M. Samuels



SAMUEL SAMUEL & CO., LTD.: THREE VIEWS OF THE FIRM'S BUNKERING OPERATIONS AT MOJI AND SHIMONOSEKI —
 H. SYKES THOMPSON, MANAGER — PORTION OF THE FIRM'S HUGE COAL STOCKS AT MOJI



HOSOYE BAY, SHIMONOSEKI

& Co., giving them special facilities for carrying through important transactions. With the development of Japan's own financial and economic resources the necessity ceased to exist for some of the functions which the old firm had been fulfilling, and greater attention was then devoted to ordinary trade lines, though Messrs. Samuel Samuel & Co. have never lost that intimate relationship with the Japanese and other Governments that was the special feature of their earlier history.

The old firm became a limited liability company some years ago, and both prior to that change and since, the record of the house has been one of constant progress and increasing prestige. Branches are maintained at such important centres as Tokyo, Osaka, Yokohama, Kobé, Moji, and Taipeh (Formosa). Business transacted varies only according to the special trade lines at each place. The company holds a large number of very important agencies, and deals extensively in practically every item which makes up the sum of import and export trade in Japan. The Shimonoseki (Moji) branch, with which we are now dealing, has made a special feature of the coal business, apart from the general shipping and other agencies and import and export operations. Coal is largely exported by the company to Hongkong, Saigon, Manila, Colombo, Singapore, Java and elsewhere. For several years prior to the war Messrs. Samuel Samuel & Co., Ltd., held the contract for the G. I. P. Railways of India, and shipped coal to Bombay. The company is probably the largest foreign bunkering concern in Shimonoseki

(Moji) and Karatsu, and through the London agents, Messrs. M. Samuels & Co., of 25-27 Bishopsgate, E. C., contracts are in force with the principal British and Continental steamship owners for bunkers. The company also holds contracts with the British and Italian Governments. The Bunkering Department of the company holds the time record for loading 8,000 tons of bunkers in Moji harbour, as well as the record for having loaded the largest cargo of coal ever despatched from Moji.

Reverting to the fact that Messrs. Samuel Samuel & Co., Ltd., are in such close contact with various governments, it may be mentioned that the company has carried out some important commissions during the war. All the steam trawlers purchased by His Excellency the Governor of Ceylon were obtained through the company by H. B. M. Embassy in Tokyo, and the Italian Government also entrusted the entire purchase of their requirements, which included fifty-three vessels for mine sweeping in the Mediterranean, to Messrs. Samuel Samuel & Co., Ltd. In the Shipping Department Messrs. Samuel Samuel & Co., Ltd., are agents at Moji and Karatsu for the Royal Mail Steam Packet Company, now working in conjunction with the Glen Line of steamers, maintaining a regular service in peace times between London and the Far East. Other shipping agencies include those of Messrs. Furness, Withy & Co., Ltd., the Swedish East Asiatic Company, Danish East Asiatic Company, Asiatic Navigation Co., Ltd., the Hogarth Shipping Co., Ltd., the Anglo-Saxon Petroleum Co., Ltd., and the British India Steam Navigation Co., Ltd., at Misumi.

Samuel Samuel & Co., Ltd., represent the International Banking Corporation of New York, and the Bureau Veritas (International Register of Shipping). In insurance they are settling agents for the Fireman's Fund Insurance Co. of San Francisco, for the Marine North China Insurance Co., Ltd., and for the Liverpool & London & Globe Insurance Co. A general import trade is done, the main lines being wire rope, iron



SAKINOMACHI, SHIMONOSEKI



THE SHIMONOSEKI OFFICES OF AKITA SHOKAI

bars, bundles, plates, angles, rape seed cake, bone meal, paints, ships' stores, etc. The company holds the agency for Messrs. D. & H. Haggie, of Sunderland, whose wire ropes have a wide reputation throughout the principal collieries of Kyushu. Another valuable agency is that of Zocus ship paints. Messrs. Thomas Cook & Sons are represented at Moji and Shimonoseki by the company. That the branch is of first rate importance is evidenced by the fact that the turnover for the year 1916 was over Yen 10,000,000.

Mr. H. Sykes Thompson, who has been with Messrs. Samuel Samuel & Co., Ltd., for fourteen years, is Manager at Moji, a position he has held for ten years past. The telegraphic address for the offices at Shimonoseki, Karatsu, and Misume is "Orgomanes" Shimonoseki.

AKITA & CO., SHIMONOSEKI

MR. TORANOSUKE AKITA, who directs the many different interests which are comprised under the name of the Akita Shokai, well deserves the title of being one of the most

successful business men in Japan, as he certainly is the leader in financial and commercial circles in Yamaguchi Prefecture, of which Shimonoseki is the centre. This gentleman was born at Fujiyama-mura, in 1875, and on the completion of his education launched out on a business career which has been conspicuously brilliant. He was early attracted to the possibilities of the shipping industry, and commenced operations in this direction in 1905, when he chartered a foreign steamer and opened up a new line of trade between Japan and China. This initial move was a success, and shortly afterwards the Akita Shokai was organised.

The firm does a general business in shipping, trading, mining, colonisation and development schemes, fishing and lumber industries, besides acting as agent and broker for various marine, fire, and life insurance companies. Moreover, the firm is engaged in the manufacture and sale of the Akita system of fire extinguishers. The development of this widely varied business may be traced in the following way: In 1906 Mr. Akita com-

menced a general shipping business, employing steamers on the Inland Sea and in the coast trade of Japan. A number of vessels have been purchased at various times since then, and the firm has made every effort to improve the trade and transportation facilities with Manchuria and China, while at the same time the Chosen and Taiwan routes have not been neglected. In 1909 Mr. Akita bought up the Shimonoseki Post Office pier, and by improving the structure he was able to provide much better facilities for the embarkation of the travelling public. The following year the proprietor of this rapidly expanding business leased some land at Chinkaiwan, and built a number of houses. In 1911 the business was transformed into a *goshi kaisha* with a capital of Yen 300,000, and Mr. Akita continued to direct affairs as President of the new organisation. Since 1912 the firm has bought forest lands at Osaba-mura, and the lumber has been marketed, while at the same time a rich tract of territory has been improved by the building of roads, and reclaiming of lands, which are

later on to be put under rice cultivation.

Mishima Colliery near Osaba-mura, and the Tsukikuma Colliery in Fukuoka Prefecture, are also owned by the Akita Shokai. Since 1913 the firm has invested largely in mining in Chosen, where valuable leases have been acquired from the Government, and operations are in force for producing gold, silver, copper, tungsten, iron, zinc, and graphite. In 1914 the firm was successful in securing the transfer of a lumber mill from the South Manchuria Railway Company. This mill was formerly worked by the Russian Government, but when it came into the hands of the Akita Shokai it was renamed the Dairen Lumber Mill, and its direction was placed under the Dairen branch of the firm. The same year the firm established a branch at Tientsin, and Mr. Akita organised the Tientsin Warehouse Co., Ltd., of which he is the largest shareholder, and his brother is Managing Director. At the request of the shareholders of the Kwanmon Marine Products Co., Ltd., Mr. Akita took over the presidency of that concern in February, 1914, and reorganised it, raising

the company to a prosperous condition, and enabling it to achieve new records in trawl fishing in Japan. This company has since sold eight trawling vessels to the French and Italian Governments. These vessels were delivered at Port Said and the transaction was the first of its kind carried out in Japan. To complete the record of a very busy and successful life, it should be mentioned that in 1915 Mr. Akita invented a highly successful powder fire extinguisher, which is being manufactured and sold extensively.

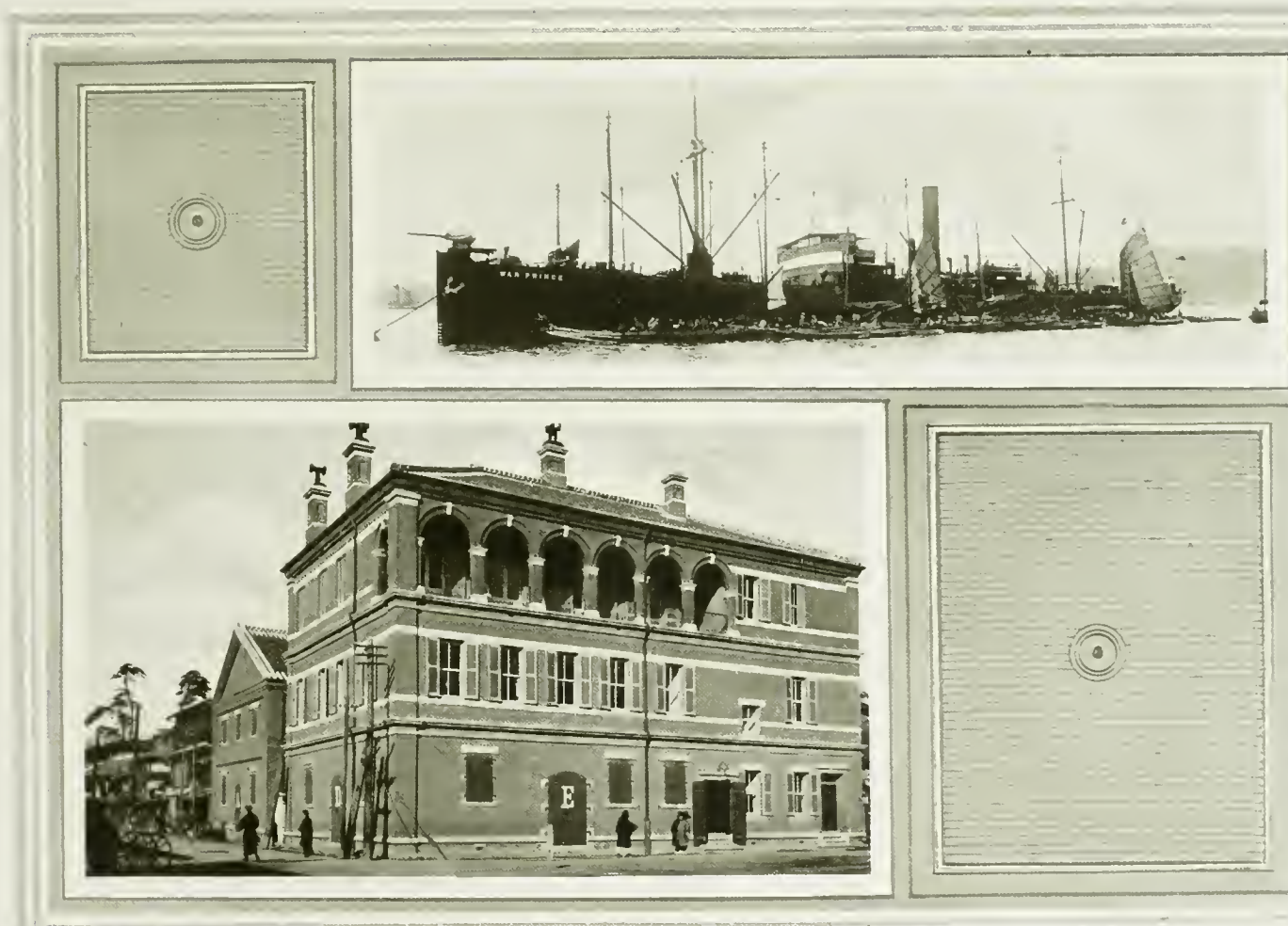
Mr. Akita is associated with a large number of companies and industries. He is President of the Shimonoseki Billbroker Bank, Ltd., President of the Tsingtao Flour Mill Co., Ltd. (capital Yen 500,000), President of the Kwanmon Commercial Co., Ltd., President of the Akita Steamship and Fishery Association, Director of the Kyodo Transportation Co. Ltd., and of several other companies, member of the Shimonoseki City Assembly, committeeman of the Chamber of Commerce, member of the Business Tax Investigation Association, and a member of the House of

Representatives. He has always been noted for his keen interest in public affairs and for his liberal support of educational movements.

JARDINE, MATHESON & CO., LIMITED

Messrs. Jardine, Matheson & Co., Ltd., are strongly represented in every important trading centre throughout the Far East. Shimonoseki is no exception to this statement, for here the company occupies a prominent position in general trade, and especially in the shipping and coal business. The branch was opened in 1900 to attend to the various agencies held by Jardine, Matheson & Co., Ltd., and to do business in coal, rice, flour, bean cake, machinery, etc. The volume of trade rapidly increased, and the company purchased a business site, centrally located on the water front, close to the Customs House, and in 1905 erected a three-story brick building for offices and residential quarters, with a commodious two-storied godown behind.

Business is constantly increasing, and the operations of Jardine, Matheson & Co., Ltd.,



(UPPER) S. S. "WAR PRINCE," BEING COALED AT MOJI BY JARDINE, MATHESON & CO., LTD. (LOWER) OFFICES AND GODOWNS OF JARDINE, MATHESON & CO., LTD., SHIMONOSEKI



SHIMONOSEKI PREMISES OF T. YUASA & COMPANY

now consist, in addition to the trade lines mentioned above, of large transactions in coal, which is shipped as bunkers, or exported as cargo to various southern ports. The company has supplied coal for its own line, the Ellerman & Bucknall S. S. Co., and allied lines, Andrew Weir & Co., etc., with both bunker and cargo coal for several years past. Since the war Jardine, Matheson & Co., Ltd., have done a large business with the British Government in cargo and bunker coal, supplied to the numerous new ships built in Japan and requisitioned.

The company represents the Waterhouse Steamship Lines, Bombay-Burmah Trading Corporation (teak), New York Lubricating Oil Co., Hongkong & Shanghai Banking Corporation, and the companies for which Jardine, Matheson & Co., Ltd., act as general agents and managers in China. Mr. A. Hills is the company's Manager at Shimonoseki.

T. YUASA & CO.

MESSRS. T. Yuasa & Co. occupy a prominent position in the trade of western Japan, Manchuria, and Chosen. The firm has been established for many years, and though for

a long period its operations were mainly confined to Kobé, business was extended to new spheres immediately the opportunity arose. An instance of this progressive spirit on the part of Messrs. T. Yuasa & Co. is to be found in the fact that they were amongst the first Japanese merchants to open a branch in Dairen, immediately upon the conclusion of the Russo-Japanese War.

This firm does a general business as importers and exporters, handling practically every line of merchandise. Imports comprise flour, hardware, sugar, cotton, gunny bags, etc., from abroad, and large quantities of agricultural produce from Manchuria, prominent amongst which are soya beans, bean oil, seed cake, and so on. The head office of Messrs. T. Yuasa & Co. is at Kobé, and there are branches at Shimonoseki, Dairen, and in every important centre throughout Japan and adjacent countries.

HOLME, RINGER & CO. (WURIU SHOKWAI)

THIS firm has been established in Shimonoseki for over twenty-eight years, and is one of the best known concerns engaged in the general shipping business in southwestern

Japan. Messrs. Holme, Ringer & Co.'s Shimonoseki office is almost universally known as the Wuriu Shokwai, their Japanese title. They are chartering brokers, coal exporters, importers of metal goods and other merchandise, insurance agents, both fire and marine, and shipping agents, the business transacted being practically all that is incidental to a general merchant house in a busy shipping centre.

Messrs. Holme, Ringer & Co. are agents at Shimonoseki for the Chartered Bank of India, Australia, and China. They are Lloyd's agents, and also represent the London Salvage Association. Among the shipping agencies held by the firm are the following: Bank Line, Ltd., Asiatic Steam Navigation Co., the "Ben" Line of Steamers, Canadian Pacific Ocean Services, Ltd., China Navigation Co., Cie des Messageries Maritimes, Java-China-Japan Line, Norwegian, Africa and Australian Line, Northern S. S. Co. (Petrograd), Ocean S. S. Co. (A. Holt & Co.), Pacific Mail S. S. Co., and the Royal Mail Steam Packet Co. (Pacific services).

Business is transacted in Moji and adjoining centres. The firm is engaged in the coal

trade to a large extent, and contracts for coaling locally and abroad. The office is at No. 27 Nishinabe-cho, Shimonoseki. Mr. R. McKenzie is Manager in Shimonoseki for the firm in whose service he has spent sixteen years, four of which have been as director of the interests of Messrs. Holme, Ringer & Co. at Shimonoseki. The head office is in Nagasaki.

KYUSHU ELECTRIC RAILWAY CO.,
LIMITED

Moji and Nagasaki, the largest ports of the island of Kyushu, are principally notable as coaling stations, and consequently it has been customary to regard the whole territory which feeds them as important only from its productivity in this direction.

A little thought points to the natural development to be expected from an inexhaustible supply of cheap fuel to be the growth of industries. Prior to 1914 the opening up of new industrial ventures proceeded steadily, but the last three years have witnessed a marked acceleration in the increase in the number of tall chimneys.

It was with the idea of being an important factor to the industrial development of the island that the Koushu Electric Railway Co. was formed ten years ago (1908), and if during the first years the promoters were forced to exercise some patience, they are more than rewarded by the pressure under which they work to-day, in order to supply demands, all on the increase, for more power. All the industries, such as the Imperial Brewery, the Kobé Steel Works, the Dia-Nippon Sugar Manufacturing Company's Daiiri Refinery, the Kyushu Electric Wire Company, described in this volume, and numerous other concerns that have been established in rapid succession at Daiiri, Kokura, Tobata, Yawata, Kurazaki, Orio, etc., and other towns of northern Kyushu, are supplied to a greater or less extent by this power plant, with the result that the present installation of 23,000 K. W. is found quite inadequate. At the time of this writing a further 10,000 K. W. is being added, increasing the power to 60,000 H. P., which will in the near future be further augmented to 80,000 H. P.

With regard to the tramway service, the company has in operation at present 21 miles of line between the port of Moji and Orio, to which an addition of 3 miles is at present under construction, linking up Tobata and Yawata. As an indication of the growth in the passenger traffic of the line, it may be stated that the increase in the number of passengers transported during the last half of 1917 was just 38 per cent in advance of the number carried during the same period of 1916. The lighting service which is universally admitted admirable, has also felt the development which must be attributable to the growth of industries and consequently of population, inasmuch as the company has been called upon to supply lights, increasing at the rate of 20,000 per annum during the past eight years. Undoubtedly the coal supply would have guaranteed the industrial greatness of Kyushu, but that the Kyushu Electric Company, by augmenting and cheapening the supply of power in the form of electricity, has done yeoman service, is universally agreed. The company is also operating a



WURIU SHOKWAI (HOLME, RINGER & CO.): THE "WAR DAME" BEING COALED BY THE COMPANY FOR THE ADMIRALTY — THE COMPANY'S OFFICE



KYUSHU ELECTRIC RAILWAY CO., LTD.: BIRD'S-EYE VIEW OF THE WORKS, SHOWING CHEMICAL PLANT ON THE LEFT —
A PORTION OF THE 33,000 KILOWATT PLANT



A BREEZY DAY OFF SHORE, MOJI

chemical works for the production of potassium chloride, located in close proximity to the power station. The annual product of the works—at present 30,000 kegs of 112 pounds each—is of a superior grade, and finds a ready home and foreign market. Electrical goods are also manufactured.

The original capital of the company, Yen 1,000,000, was augmented in 1910 to Yen 3,150,000, in 1914 to Yen 6,300,000, and finally to Yen 16,000,000, the present figure. The area covered by the enterprise, including power plant, chemical works, car sheds, yards, etc., is about twenty thousand *tsubo*. Generating stations are established at seven important points of the service. The officers of the company are: Messrs. K. Matsukata (President), Y. Tomiyasu, T. Yamaguchi, M. Seno, I. Obata, K. Ozone (Directors), and M. Matsumoto (Director and General Manager).

OKURA GUMI

THE Kyushu branch of Okura Gumi, located at Moji, does an extensive business in the importation of all kinds of industrial machinery, for the installation of the numerous plants that are everywhere springing up throughout northern Kyushu. Metals of all descriptions, in bulk and manufactured form, as well as the mineral products of the island, are handled very extensively. It is the policy of the house to prepare for every demand in their particular line, so that it may be taken for granted that everything which comes under the heading of Hardware, in the widest sense of the word, is handled by them. Readers are recommended to refer to the Tokyo Import and Export Section of this volume, which supplies further interesting details on the history of the firm. (See page 211.)

GOSHI KAISHA TOMOEGUMI

GOSHI KAISHA TOMOEGUMI started in the general shipping business, principally brokerage, etc., fifteen years ago and came in, during the recent boom, for a considerable share of the general success. In 1916 the concern was turned into a partnership, and will in the near future undergo a further change to emerge a limited company. The firm previously owned four steamers, which they sold, engaging in the business of chartering.

About fifteen steamers are at present under charter to the firm, of which ten are sub-chartered, and the remainder, plying to all parts of the world, they maintain in their own service. They also own a large colliery, situated at Yokoshima, employing about five hundred people. The annual output is 70,000 tons, which, however, represents only one-third of the coal annually sold by them. In this connection it is important to note that they do a considerable business



MOJI OFFICE OF OKURA GUMI



GOSHI KAISHA TOMOEGUMI: BUSY SCENE IN THE HEAD OFFICE AT MOJI — OFFICES AT WAKAMATSU — OFFICES AT SHIMONOSEKI

in the coaling of steamers. Branches of the Goshi Kaisha Tomoegumi are maintained at Kobé, Osaka, Shimonoseki, and Wakamatsu, whilst at the latter place they have a coke manufacturing plant.

Mr. K. Nakano, the President and General Manager, enjoys an enviable reputation in Japan, and is a committee member of the Coal Merchants' Guild of Kyushu. He is also interested in the ferry companies that ply between the two ports of Moji and Shimonoseki, and is the founder of the New Mercantile Steamship Company, which will shortly commence operations. Mr. S. Nakano, brother of the above named gentleman, is a partner, active as Vice-President and Assistant Manager.

NAKAMURA & CO., LIMITED

PERHAPS one of the most interesting figures in the high commercial circles of Japan to-day is Mr. S. Nakamura, President of the Kabushiki Kaisha Nakamura Gumi, or Nakamura & Co., Ltd. Mr. Nakamura figures prominently amongst those fortunate individuals who, having taken opportunity firmly by the forelock, find themselves possessed of more millions of yen than they, in the majority of cases, know exactly what to do with. Mr. Nakamura is not, however, a "*narikin*," the term which is applied in Japan to the more recent of the millionaires. A glance at his most interesting career will show that Mr. Nakamura is one of the soundest business men, and that the foundation of his great success and fortune was laid long before the war.

Under the business title of the Goshi Kwaisha Nakamura Gumi, the original firm came into existence in 1904 with the very small capital of Yen 150, and, it may be assumed from results, a large fund of determination. The firm started operations in Manchuria, while the war with Russia was still raging, the business comprising the chartering of lighters and freight transportation for the Government. There was then a small office in a single room at Dairen. From such a small start Mr. Nakamura went on in the transportation business, steadily progressing, and strengthening his position, investing profits in the business, and developing an organisation ready to cope with any commercial situation. Space does not permit of our dealing with the successive steps taken by the firm. Suffice it to say that prior to the outbreak of the European War Mr. Nakamura was running steamers of his own, and the success which enabled him to establish the present company, with a capital of Yen 6,000,000, and to embark on many other enterprises involving a much larger amount of capital, was merely the result of

the foundations so firmly laid in the past.

At the time of writing Nakamura & Co., Ltd., have about nine vessels in service, but the building programme provides for a number of new steamers, which will bring the total of the fleet up to about 38,000 tons by March, 1918. Some of the new steamers are being constructed in the company's own yard, recently established at Chinampo, Chosen. At present the operations

upon him obligations of a public nature, which he meets in a whole-hearted manner, hoping to be able to inspire other men of wealth to emulate his example. The port of Hakata, some fifty miles southwest of Moji, is the scene of one of Mr. Nakamura's most interesting public undertakings. The work in hand comprises the construction of a harbour which will involve the outlay of Yen 40,000,000, the work to take a number



A STREET SCENE IN MOJI

of this yard are restricted to the construction of steamers up to about 1,000 tons, but this limit will naturally be raised within a reasonable period and upon the installation of the plant now on order. At the Moji and other branches the company undertakes the coal business, the volume of trade being about 1,000,000 tons per annum.

Mr. Nakamura is now establishing a department for general import and export business, and is sending a representative to Europe who will make the necessary foreign connections to ensure the success of this new enterprise. Branch offices are established at Keijo, Heijo (or Pinyan), Chinampo, which is the present head office, Wakamatsu, Osaka, Tokyo, and Kobé. In the latter port very commodious and imposing office premises have been purchased, and by the time this volume is issued, the company's head office will have been removed from Chinampo to the new building at Kobé.

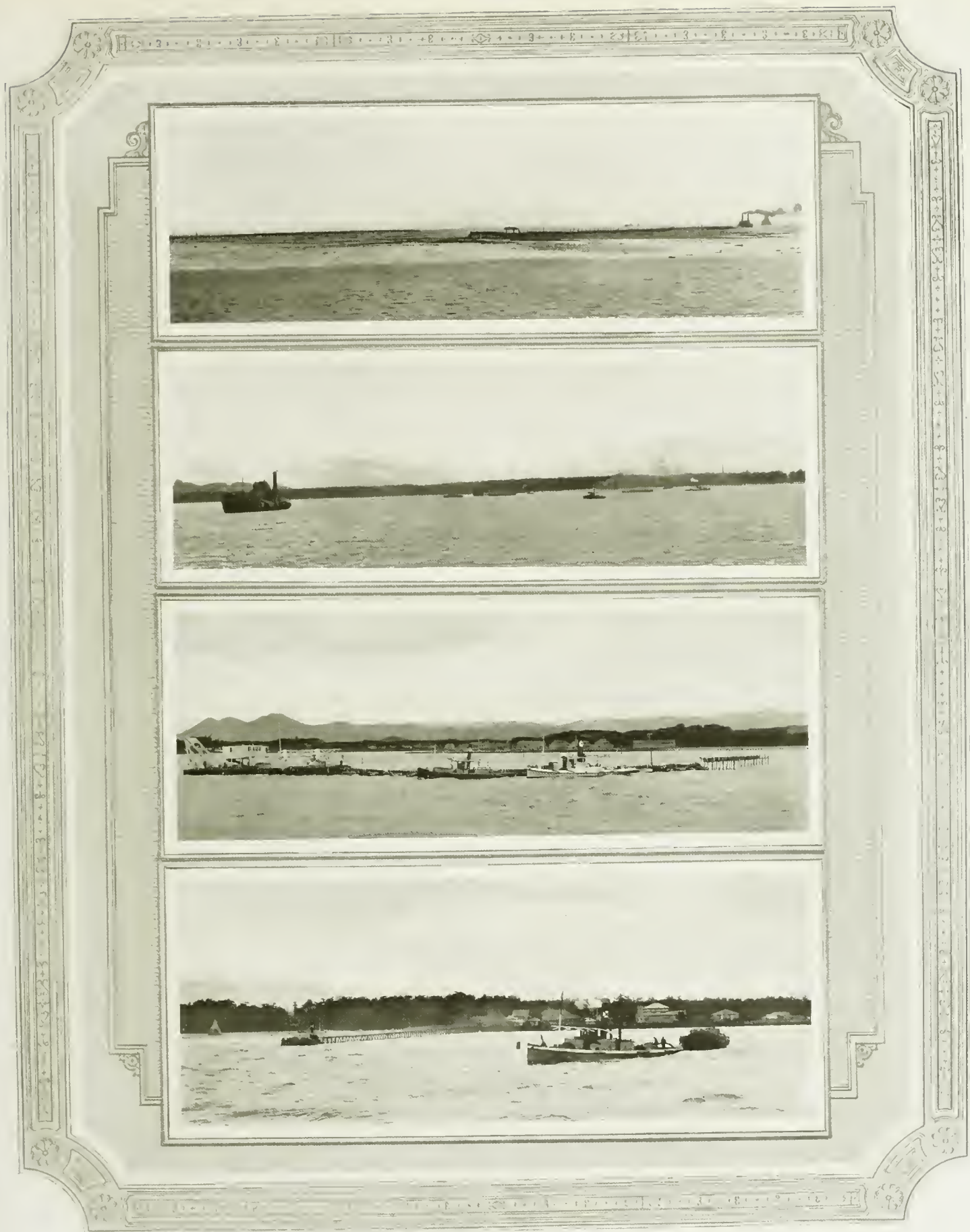
It is Mr. Nakamura's conviction that the acquisition of his huge fortune has imposed

of years. Mr. Nakamura formed a special company for this undertaking, and took up a large majority of the shares in the capital of Yen 3,000,000. The first part of the undertaking calls for an expenditure of Yen 5,000,000. Additional capital will be raised as required. The inauguration ceremony of the first stage of the work will take place in October, 1918, and the second stage will, in all probability, see completion with the end of 1921. Dredging operations are now in progress, and the harbour will accommodate ships of 5,000 tons to begin with. A small scale dockyard for repair work has been installed. This will be sufficient to meet all requirements in the immediate future, but it can be enlarged as occasion demands.

As a port, Hakata, located between Moji and Nagasaki, in spite of its 100,000 inhabitants, and the very great natural advantages which inspired Mr. Nakamura to undertake its development, has no great commercial importance to-day. The development of Kyushu Island, which the Government con-



NAKAMURA & CO., LTD.: IRON WORKS AND SHIP YARD AT CHINNAMPO, CHOSEN — SMOKELESS COAL LOADING DEPOT AT CHINNAMPO — OFFICES AT MOJI — TYPE OF THE COMPANY'S STEAMERS — OFFICES AT TOKYO — OFFICES AT KOBÉ



FOUR VIEWS OF THE HARBOUR WORKS AT HAKATA

templates, the establishment of new industries and the exploitation of the mineral resources, are what Mr. Nakamura has in mind, but it will be understood that under the most favourable conditions, and even given times of phenomenal development, this gentleman will have long to wait before there is even the smallest return on the enormous sum of capital invested. The element of risk is so great that the scheme would not attract any capitalist who was not inspired with the highest ideals, and the utmost confidence in the future greatness of Japan.

Another project which Mr. Nakamura has taken up in a public spirit is the establishment of a large experimental chemical laboratory, which he has endowed with Yen 3,000,000 for ten years. Impressed with the difficulties under which research work has been carried out in Japan, Mr. Nakamura established this laboratory, which is specially equipped in all details. It is divided into six departments of investigation, each under the direction of a scientist who has graduated from Tokyo or some other University, assisted by keenly interested students and

graduates. The results of the work done in this laboratory will be developed commercially.

Throughout his business operations, Mr. Nakamura employs about four hundred clerks and a much larger number of labourers. Apart from the undertakings already mentioned, the principal of the company has many other interests in Japan and abroad, among which may be mentioned rubber estates in the Malay peninsula. It will not be necessary to add that there are few more alert or energetic personalities in Japan to-day than Mr. S. Nakamura.

YAMASHITA COAL CO., LTD., MOJI

No name is better known throughout Japanese shipping circles, or in connection with the coal trade, than that of Mr. Yamashita, whose interests are very extensive. Mr. Yamashita has been engaged in the coal trade for close on a quarter of a century, and his position in the shipping industry is equally as pronounced. The Yamashita Coal Co., Ltd., is one of the concerns under his control, and the extent of its operations are so great that

it is rightly considered the leader in the entire business in the East. The company controls seven collieries in Japan, the output of which is noted for its excellent quality for steam and general purposes, and for its moderate price.

The Yamashita Coal Co., Ltd., engages extensively in coaling operations not only at Moji, but at various other ports, where ships are supplied with bunkers, or cargoes are loaded for export. It may well be imagined that a company with such a lengthy experience in the trade is in a position to load and discharge coal with great rapidity. The plant employed is second to none, and the company takes pride in the satisfaction which has been expressed in shipping circles generally over the work carried out under contract. The head office of the company is at No. 22 Gofukucho, Tokyo. The Moji branch office is at Higashi Hon-cho, Shichome, Moji, and is under the management of Mr. S. Nakai. There are also branches at Yokohama, Osaka, Wakamatsu, Otaru, Nagoya, Naoyetsu, and Muroran. The cable address of the company is "Yamashita," codes used being A. I., and A. B. C. 5th Edition.



YAMASHITA COAL COMPANY, LIMITED: S. S. "NAM SANG," LOADING A CARGO OF COAL FOR THE BRITISH ADMIRALTY—
THE FIRM'S PROPOSED NEW OFFICES AT MOJI



ENTRANCE TO NAGASAKI HARBOUR

XLVIII. THE CITY OF NAGASAKI

IN one sense Nagasaki should be better known to the Western world than any other city in Japan, for it was one of the earliest ports visited by foreigners and the only place in which they were allowed to settle and trade after Japan was isolated in the seventeenth century. The small fishing village that for centuries occupied the fore-shore now represented by the imposing waterfront of Nagasaki began to assume the proportions of a growing town when Yoritomo granted to Nagasaki Kataro the valley known as Fukae-no-ura in the thirteenth century, the town that emerged taking the name of its master. Situated on a narrow bay indenting a peninsula which juts out from the southern part of the island of Kyushu, and surrounded on three sides by steep, green hills, no more beautiful site for a city could be imagined. The area of the valley where the settlement lies is about six square miles in extent. The harbour is an ideal one, deep and well sheltered, affording safe anchorage to shipping of all sizes, and proving a place of refuge to many a storm-driven vessel escaping from distress in the typhoon-swept waters of the south. It was under stress of weather that the first foreign ship visited Nagasaki, a Portuguese merchant vessel which sailed into the harbour in the year 1570, remained for a time trading with the people, and was so pleased with the results that subsequently repeated visits were made by foreign ships bent on trade. After Nagasaki became a regular port of call for Portuguese ships trading in the Far East,

the Spanish found it out and began to arrive, and in time the Dutch and English, the latter establishing their "factory" at Hirado, some distance away.

In Nagasaki the Jesuit fathers found their earliest and most loyal converts to the Christian faith, and when the banner of barbarous persecution was later unfurled against the disciples of the Nazarene, the Nagasaki members of the Church showed themselves to be of the stuff of which martyrs are made, many of them, men, women, and children, going gladly to crucifixion rather than trample on the cross as a sign of their retraction of their new-found faith. The monuments of this persecution may still be seen in the Roman Catholic Cathedral at Nagasaki. And that the blood of the martyrs was in this case, at least, the seed of the Church, may be seen from the fact that nearly 300 years after the faith was supposed to have been completely eradicated from the soil of Japan, Christians were still found at the village of Urakami, near Nagasaki, when the missionaries returned in response to the opening of Japan to foreign intercourse in the nineteenth century.

Before the outbreak of persecution, however, the foreigners at Nagasaki did a prosperous trade, and the feudal lord of the district did not hesitate to traffic with them, even to the borrowing of large sums of money, which afterwards he proved unable to repay. The daimyo of the time had constant conflicts with one another, and money was necessary to their numerous military campaigns. As

the foreigners were the only source of foreign arms and ammunition, they were doubly welcomed by the warriors and their services often sought in equipping military forces. When the daimyo of Nagasaki was unable to meet his financial obligations incurred with the foreigners, he conceded them favours in regard to trade instead, together with rights to carry on religious propaganda. About these latter the Buddhists raised such a storm of opposition that later a petition from the officials at Nagasaki asked Hideyoshi, then the veritable ruler of the country, to prohibit the foreign religion. This is regarded by some as the beginning of the official aversion to the Christian religion in Japan, but the causes must not be forgotten. These the Japanese assert to have been the suspicion raised by the foreigners as to the motives of their countries in sending them to Japan, which were believed to be political and a menace to the independence of the Empire. It can not be overlooked, however, that the first petition against the new religion from Nagasaki was due to Buddhist jealousy and to the debts which the feudal lord was unable to meet, while Hideyoshi's ready response to the appeal and his subsequent launching of cruel persecutions must be ascribed in a large measure, not so much to religious convictions, as to his hatred of the missionaries who opposed the nefarious traffic of his agents in trying to collect among the Christian families beautiful girls for his harem. Although Hideyoshi forbade the teaching of Christianity

at Nagasaki, the believers continued to increase, and the more they increased the more sternly did they refuse to insult the crucifix. On one occasion Hideyoshi had 25 leading Christians, 13 Japanese and 12 foreigners, marched through the country under appalling agony and then publicly crucified at Nagasaki as a warning to the faithful. But all this proved to no purpose, for the new religion had taken root and continued to grow until after more than a hundred years of the most persistent and cruel persecution the last Christian was supposed to have been swept from Japanese soil.

While the authorities at Nagasaki had such an aversion to the religion of the foreigners, for the reasons just given, on the other hand they did all they could to encourage foreign trade. By the year 1613 we find that as many as 120 European vessels entered the port of Nagasaki annually. As foreigners were banished from other parts of Japan in the middle of the seventeenth century they began to settle in Nagasaki, most of them Portuguese, Spanish, and Dutch. The latter, unable to endure the keen competition that rose with the others, circulated all sorts of defamatory stories about the Spanish and Portuguese and their countries, which the Japanese authorities came in time to believe, until this and the religious propaganda of the missionaries became an excuse for banishing all foreigners from Japan except the Dutch and Chinese, the former being subjected to the most humiliating conditions in their confinement to the little island of Deshima at Nagasaki. As the Christians refused to abandon their religion after the banishment of their leaders, the persecution waxed radically severe, and in 1637 they arose in rebellion, taking refuge in a castle at Shimabara not far from Nagasaki, but they were finally subdued and put to the sword. In the Dutch settlement at Nagasaki there were always



HAMANO-MACHI, PRINCIPAL SHOPPING THOROUGHFARE OF NAGASAKI

men of some scientific attainments, like Kämpfer and von Siebold, who did much to make Japan known in Europe, while the more intelligent of the Japanese used the Dutch "factory" as a window through which they might see Europe and obtain something of Western knowledge. It is not too much to say that during the two hundred years of Japan's isolation from the Western world, she received sufficient of Occidental knowledge through the Dutch at Nagasaki to prepare her in some measure for the subsequent opening of the country to modern civilisation and intercourse. Indeed, there is no city in Japan that has had a greater influence on the civilisation of the country than Nagasaki, having been for centuries the one opening through which a knowledge of science, art, and civilisation could filter in from China and the nations of the West.

The principal articles of trade during the Dutch occupancy of Deshima were European textiles, especially woollen blankets and other cloths, sugar, medicines, cinnabar, hides, leather, and perfumes, to say nothing of muskets, cannon, and powder; while the chief items of export were dried fish to China, especially *bêche-de-mer*, *awabi*, and sharks' fins, as well as ginseng and earthenware. To

Europe went porcelain, silk, gold and lacquer ware. During the period of seclusion the people of Nagasaki longed for greater liberties in regard to foreign trade, but the authorities were adamant, and no Japanese ship was allowed to navigate the high seas or touch at a foreign port. Any one attempting to go abroad was immediately decapitated. Such was the state of affairs when, in 1804, a Russian frigate one day suddenly sailed into Nagasaki harbour without leave or license; and in 1808 a British gunboat followed a Dutch ship into Nagasaki, England being then at war with Holland. From this time foreign ships began to appear along the coasts of Japan with impunity, though some of the sailors cast away on the shores of the country were cruelly treated, leading the American Government to despatch a mission under Commodore Perry, in 1853, to demand a treaty of comity and intercourse, which he succeeded in doing, and then Japan and Nagasaki were once more open to the world.

After the opening of the country the chief centre of foreign trade was at Yokohama and later at Kobe, so that the commercial progress of Nagasaki was somewhat slow. When the Imperial Government established a custom house at Nagasaki in 1873 the progress of trade became more marked, though it never assumed a position of abnormal importance, as in recent years Nagasaki has not been able to hold its own against ports like Moji and Shimonoseki. During the wars with China and Russia there was, however, a remarkable expansion of trade and great activity in munitions at Nagasaki, which, of course, could not be expected to continue. As trade began to withdraw to more conveniently situated ports, the population also declined. Ten years ago the population of Nagasaki was 173,000; now it is not more than 162,000, including some 1,200 foreigners.



TWO ASPECTS OF THE PORT AND HARBOUR OF NAGASAKI



A BEAUTIFUL EUROPEAN RESIDENCE AT NAGASAKI

The following table shows the progress of trade at an interval of five years:

| YEAR | EXPORTS | IMPORTS | TOTAL |
|------|-----------|-----------|------------|
| | Yen | Yen | Yen |
| 1910 | 3,303,959 | 8,918,907 | 12,222,866 |
| 1915 | 4,639,673 | 7,829,518 | 12,469,191 |

It may be said that at present Nagasaki is just holding its own in trade and no more. The principal exports are dried fish of various kinds, rice, sweet potatoes, mushrooms, tea, coal, charcoal, wax and vegetable oil, paper and porcelain, while imports are for the most part cereals, beans, cotton, petroleum, iron, and machinery.

Industrially, Nagasaki must remain an important section of the Japanese Empire, for the sake of the great Mitsubishi Dockyards and for the immense coal mines in the vicinity, if for no other reason. The docks and shipbuilding yards of the Mitsubishi Company are described elsewhere in this volume and need not receive extended notice here. It is sufficient to say that they can accommodate the largest steamers; and the biggest battleships and merchant vessels have been launched from the Mitsubishi yards, more than 10,000 skilled mechanics being employed in the works. At the mouth of Nagasaki harbour are the famous Takashima mines, producing an immense tonnage annually, and supplying the more than 6,500,000 tons of shipping that annually enter the port of Nagasaki, as well as exporting large quantities. The coaling of ships is done by women passing small baskets from hand to hand,

more than 1,200 hands being available on short notice, capable of putting on board

about 640 tons an hour. The sight is indeed something to see.

In domestic industries of various kinds the Nagasaki folk are noted for their skill and craftsmanship. One of the most famous products of the place is tortoise-shell ware, the raw material being imported from the southern seas. In this ware such articles as cigar and cigarette cases, toilet boxes, hairpins, combs, ship-models, and toys are turned out in great quantities and are masterpieces of art. Embroidery is another art in which Nagasaki excels, while the lacquer ware, umbrellas, and fans made there have a large sale.

As a city of pleasure and beauty, Nagasaki ranks high among the resorts of Japan. People from China, India, and the Philippines frequently take refuge there in the hot season, as the climate is mild the year around, never suffering from extremes of temperature. The average temperature at the port is 15.7 above zero Centigrade, the maximum being 36.7 above, and the minimum 5.2 below zero. The winding, hilly streets of many parts of the town are inconvenient to the delicate and the aged, but add greatly to the picturesqueness and beauty of the situation and outlook. Tramways and motor car services, however,

relieve the pedestrian of the strenuous exertions of the old days, while there is railway and steamboat communication with every part of the Empire. There are also good foreign hotels for the accommodation of those making a long stay. The city is well lighted by electricity and kept in a good state of sanitation, while a modern waterworks system supplies the inhabitants with pure mountain water. The great banks are well represented, the most important being the Yokohama Specie Bank, the Hongkong & Shanghai Banking Corporation, and the Japanese banks. The city is well provided with educational institutions, having a Government Higher School of Commerce, a city commercial school, with secondary and primary schools for both sexes, to say nothing of two fine mission colleges for men and women.

The historical associations of an old city like Nagasaki are too numerous for extended notice. One of the most famous places is Osuwa Temple on the heights overlooking the city, possessing relics associating it with the persecutions of the Christians. The Kunichi Odori, or Nine Days' Dance, is a festival peculiar to this temple and wonderful to behold. The Roman Catholic cathedral in Nagasaki and the church at Urakami are interesting objects, bringing back memories of the past. There are few cities that have more charming environments and walks than Nagasaki. The trip over to Mogi is one abounding in landscape scenes one can never forget. Across the Bay of Shimabara is the Unsen Spa, where many spend the summer months, with the great volcano dominating all. One inconvenience to travellers is that Nagasaki lies in a military zone and photo-



HOLME, RINGER & CO.: THE OFFICES AT NAGASAKI—THE FIRM'S PRIVATE LAUNCH

graphing or sketching will get into trouble those who insist on picturing their impressions.

HOLME, RINGER & CO.

To the traveller and merchant of the Far East the name of Holme, Ringer is almost synonymous for that of the port, so intimately associated is its history with Nagasaki. The firm will celebrate its fiftieth anniversary on November 2nd of this year (1918), and has, therefore, the unique record of being the sole representative of foreign trade in this centre for half a century, during which period it has been connected with the various progressive commercial and industrial movements to a most interesting degree, and, indeed, is responsible for the inception of many. As an example, it is interesting to note that the firm started the whaling industry of Japan, and fifteen years later operated the first steam trawler equipped with harpoon guns, etc. Messrs. Holme, Ringer were so successful in this business that it was not long before a large number of small whaling companies came into existence, which through over-competition were forced to amalgamate

into the present Oriental Whaling Co. of Osaka, described elsewhere in this volume.

A considerable quantity of tea was at one time exported by this firm, which fact is of interest when it is remembered that the first tea exported from Japan went through Nagasaki.

Prior to the war, Messrs. Holme, Ringer & Co. carried large stocks of Cardiff coal for supplying steamers. This business is still carried on extensively with the use of the local output.

The firm's business premises at Nagasaki are located on the Bund and cover a considerable area. The offices and godowns are excellently appointed and employ a staff of about fifty clerks in the various departments, which comprise Banking, Insurance, Shipping, Coaling, Import, Exports, Real Estate, etc. Branches are established at Shimonoseki and Fusan and a short, interesting article on the former appears in connection with the description of the Port of Shimonoseki.

The following list of well known firms for which Messrs. Holme, Ringer & Co. act as

agents will serve as an index to the important position this house occupies not alone in Japanese, but in Far Eastern trade:

Banque de l'Indo-Chine; Chartered Bank of India, Australia, and China; Comptoir National d'Escompte de Paris; Thos. Cook & Sons; International Banking Corporation; National Bank of China; Deutsche Asiatische Bank. (*Steamship companies*): American Asiatic S. S. Co.; American and Oriental Line; Auchen Steam Shipping Co., Ltd.; Barber & Co.'s Line of steamers; Charles Barrie & Son (Den Line, etc.); Ben Line of steamers; British India Steam Navigation Co.; Burrell & Son (Strath Line); Canadian Pacific Railway Co.'s S. S. Line; China Mutual Steam Navigation Co., Ltd.; China Navigation Company, Ltd.; Compania Transatlantica; Compania Genl. de Tabacos de Filipinas; East Asiatic Steamship Co.; Eastern and Australian S. S. Co.; Camillo Eitzen & Co.; H. Fredriksen; Furness, Withy & Co., Ltd. (Gulf Line); Gow, Harrison & Co.; Greenshields, Cowie & Co. (Knight Line); Houlder, Middleton & Co.; M. Jebsen; Menzell & Co.; Cie des Messager-

ies Maritimes; Mogul Line of Steamers; Northern S. S. Co., Ltd. (St. Petersburg); Ocean Steamship Co., Ltd.; Pacific Mail Steamship Co.; Peninsular and Oriental S. N. Co.; Prince Line, Ltd.; Rankin, Gilmour & Co., Ltd.; Royal Mail Steam Packet Co.; Russian East Asiatic Co.; Russian Steam Navigation & Trading Co.; Shire Line of Steamers, Ltd.; Steamship Co. "Ocean," Ltd. (Odessa); G. M. Steeves & Co.; Swedish East Asiatic Co.; Toyo Kisen Kaisha, Ltd.; Turner, Brightman & Co.; John Warrack & Co.; Watts, Watts & Co., Ltd.; Andrew Weir & Co.'s Lines of steamers (Bank Line, etc.); West Hartlepool S. N. Co., Ltd. (*Insurance companies*): Aachen Munich Fire Insurance Co.; Baloise Transport Insurance Co., Ltd.; Board of Underwriters of New York; China Mutual Life Insurance Co., Ltd.; Commercial Union Assurance Co., Ltd.; Equitable Life Assurance Society of U. S. A.; Helvetia General Insurance Co., Ltd.; Law Union Insurance Co., Ltd.; Liverpool Underwriters Association; Lloyds (London); London Salvage Association; Mannheim Insurance Company; Marine Insurance Co.; Marine Insurance Co. of Liverpool; National Board of Marine Underwriters, N. Y.; Neuchatelaise Transport Insurance Co., Ltd.; Nordische Versicherungs-Gesellschaft; North British and Mercantile Ins. Co.; North China Insurance Co.; Norwich Union Insurance Society; Royal Exchange Assurance Corporation; Royal Insurance Co.; S. British Fire and Marine Insurance Co., N. Z.; Sun Insurance Office; Swiss National Insurance Co., Ltd.; Switzerland General Insurance Co., Ltd.; Tokyo Marine Insurance Co. Ltd.; Union Insurance Society of Canton, Ltd.; Yangtze Insurance Association, Ltd.

The present partners are Mr. Sydney Ringer, the senior partner, who is in charge of the business at Nagasaki, and Mr. Frederick Ringer, who travels considerably in the interests of the firm. Mr. S. Ringer is a graduate of St. Paul's College, London, and Mr. F. Ringer of the Edinburgh Academy. Both gentlemen are keenly interested in sport.

Messrs. Holme, Ringer are the owners of a number of lighters, also fine steam and electric launches. They are large holders of both business and residential property in Nagasaki and it may be added that the firm is the centre of those organisations which have given this small community so honourable a position amongst the supporters of war charities.

THE EIGHTEENTH BANK, LIMITED (KABUSHIKI KAISHA JUHACHI GINKO)

THE EIGHTEENTH BANK, one of the oldest established banks in the Japanese Empire,



HEAD OFFICE OF THE EIGHTEENTH BANK, LTD., NAGASAKI

was founded in 1872, or within a few years of the organisation of the national finance, and was the first institution of its kind in Kyushu.

Naturally, it was some time before the bank took its present form; at its inception amounting to little more than a general loan business, the whole of the capital of Yen 50,000 being subscribed by the late Messrs. Matsuda and Nagami (the latter gentleman's place being taken at his death by his son, Mr. K. Nagami, now the President of the institution). The founders, it may be observed, showed considerable courage and enterprise, as it was no unusual thing in those early days for the Government to arbitrarily requisition money wherever it could be found, in addition to which there was no law of

any description protecting wealth, hence merchants made it a rule to hide their savings, well satisfied if they could retain the principal.

In 1877 the concern assumed the title of the Eighteenth National Bank, and in the twenty years that followed the development continued steadily, new shares being issued until, in 1897, the capital stood at Yen 1,000,000. At this stage it was decided to alter the name of the bank to the Eighteenth Bank, Ltd. In the next two years rapid progress was witnessed and the capital doubled, whilst in 1906 a further augmentation raised it to Yen 3,000,000.

To-day the capital of the bank is Yen 6,000,000, and the sphere of its operations has been greatly increased by the establish-



SCENE IN THE NATIONAL PARK OF MATSUSHIMA



SAWAYAMA SHOKAI: NEW NAGASAKI PREMISES IN COURSE OF CONSTRUCTION

ment of branches at Osaka (two branches), Kumamoto, Sasebo, Izuhara, Keijo (Seoul), Jinsen (Chemulpo), Fusan, Gensen, and other centres, bringing the total to seventeen.

The Eighteenth Bank, Ltd., acts as the Kyushu agent of the Bank of Japan, the Hypothec Bank of Japan, and the Industrial Bank of Japan, which important institutions are described and illustrated in the Tokyo Banking Section of this volume. All the departments usual to the modern banking establishment are operated by the bank, including deposits, loans, discount of bills,

remittances, collections, purchase and sale of securities, letters of credit, etc. The fact that the bank is represented in over two thousand cities throughout the world will emphasise the fact that it commands all facilities.

The officers of the bank are: Kanji Nagami, Esq., President; Yeizo Matsuda, Esq., Vice-President; Messrs Moritaro Takahashi, Takajiro Adachi, and Seiichi Matsuda, Directors; Messrs. Wabei Takami, Soichiro Fujise, and Matasuburo Yamada, Auditors. The Manager is Mr. Tsunekichi Mori.

SAWAYAMA SHOKAI

THIS firm is among the oldest established concerns in Japan, having been founded by the father of the present proprietor forty years ago—in 1878. The business was at first restricted to local trading but was later expanded, principally in the export of volcanic ash from Karatsu to the Japan mainland, Dairen, etc. This ash is an excellent substitute for cement, especially valuable in the construction of roads, pavements, wharves, docks, etc., and was extensively used in the ports and towns of Kyushu.

Mr. Sawayama later acquired two steamers, averaging about 3,000 tons, one of which is chartered, and the other maintained on service between Japan and the South Sea Islands. A considerable export trade is at present done with the islands, and it is Mr. Sawayama's policy to develop this business as much as possible. The firm supplies water to steamers for which purpose it owns a large water boat, also about thirty-five lighters for cargo transportation.

Branches are maintained at Kobé, under the management of Mr. Sawayama's eldest son, and at Fusan, under the management of the second son. Fine premises are at present under construction at Nagasaki on a most attractive site near the Bund. Mr. Sawayama is also interested in other enterprises and is on the directorate of the Oriental Ice Works of Nagasaki. For seventeen years this gentleman has served on the committee of the Nagasaki Chamber of Commerce, and for the last twelve as Vice-President of that institution.





SOUTH MANCHURIA RAILWAY COMPANY, LIMITED; BRIDGE OVER THE HUM RIVER NEAR MUKDEN—WORKSHOPS AT SHAKAKOU, NEAR DAIREN—TRAINS AT THE CHANGCHUN STATION—RAILWAY STATION AND STATION HOTEL AT MUKDEN



PANORAMIC VIEW OF PART OF DAIREN CITY (DALNY), ALSO SHOWING DAIREN BAY.

JAPAN'S COLONIAL EMPIRE

XLIX. PROVINCE OF KWANTUNG

HOW ACQUIRED—AREA, POPULATION, AND GOVERNMENT—AGRICULTURE, INDUSTRY, AND TRADE—FINANCE AND BANKING—EDUCATION—COMMUNICATIONS—DAIREN—COMMERCIAL NOTICES

THE Province of Kwantung, in Manchuria, came under Japan's jurisdiction as a result of the war with Russia, in 1905. It will be remembered that after the war with China, in 1895, Japan forced from that country a lease of the Liaotung Peninsula, with Port Arthur as the centre, but owing to the interference of Germany, France, and Russia, Japan was obliged to restore the territory to China. Shortly afterwards relations between China and certain European Powers brought about unexpected changes, the most startling of which was the leasing of Port Arthur and Dairen to Russia. As Japan considered this fraught with danger to her national existence she made repeated efforts by friendly negotiations to remove the menace. The attitude of Russia, however, was averse to Japan's policy, and when every means that patience and diplomacy could command had been exhausted, Japan felt compelled to resort to arms. At the Portsmouth Peace Conference which terminated the war with Russia, the Treaty of Peace signed between the two countries gave Japan the former rights held by Russia in Manchuria. The terms, as regards China, were confirmed by the Treaty of Peking, concluded in December, 1905, wherein China formally recognised Japan's new position. According to the treaty between Japan and Russia, signed at Portsmouth, the two countries agreed to withdraw the railway guards placed in Manchuria to

protect the lives and property of foreigners, as soon as China was able efficiently to undertake this duty; and further, that the military railway built during the war between Antung and the borders of Korea and Mukden was to be under Japanese management for fifteen years from the time of its completion of equipment for public service, for the transportation of goods of all nations. By this treaty Japan obtained possession of the southern part of the Manchuria railway and of the territory which had been leased from China by Russia. Japan regards the position acquired by her in that part of China as essential to her self-protection and the maintenance of peace in the Far East, as well as entirely innocent of any aggressive meaning. She has not, of course, been able to attain so predominant a position in one of the more important provinces of China without arousing a good deal of suspicion in that country as well as abroad. But the unpolitical nature of Japan's position in Manchuria is being constantly emphasised by Japanese officials, who proclaim their country as holding this favoured position as the champion of the Powers for the preservation of the "open door" in China, while at the same time assuring the world that Japan is in no way taking undue advantage of her unique opportunity. That Japan intends to remain in possession of Kwantung, however, is clear, from the fact that the present lease which was drawn to expire in 1923, has been extended to 1997, China being forced to ac-

quiesce in the matter on account of financial considerations.

AREA, POPULATION, AND GOVERNMENT

THE Province of Kwantung forms the most southern part of the Liaotung Peninsula, and covers an area of some 1,312 square miles, extending between $121^{\circ} 50'$ and $122^{\circ} 33'$ East Longitude on the one side, and $38^{\circ} 40'$ and $39^{\circ} 30'$ North Latitude on the other, including 40 small islands along the coast. The total population of the territory in 1916 was 540,845, of which number 490,431 were Chinese, 50,262 Japanese, and 142 foreigners. If the population of the railway zone be included, the total will reach 595,594. The largest cities are Dairen (Dalny) with a population of 57,000, Port Arthur with 18,000, and Kinchou with about 9,000.

Having thus become responsible for South Manchuria, Japan organised the Kwantung Government for its administration, whilst for its economic development special importance was attached to the railway system, on the effective working of which the success of her policy was supposed to depend. Even now, after more than ten years of occupation, the South Manchuria Railway may be said to form Japan's main source of activity within the territory and to control nearly all its interests. An administration office for the Province of Kwantung was immediately established after the transfer of the territory was completed, and also an office for the



TAKEN FROM THE ROOF GARDEN OF THE SOUTH MANCHURIA RAILWAY COMPANY'S YAMATO HOTEL

management of the South Manchuria Railway, the latter to be more or less under supervision of the Government office. The Kwantung Government has the administration of the leased territory, as well as the protection and control of districts adjacent to the railway lines transferred from Russia.

Kwantung was at first placed under military control, but after order was duly restored the administration was discharged by a Governor-General, who presides over the civil government. According to the Imperial Ordinances relating to the Government-General, however, issued on September 1, 1906, the office must always be filled by an officer of the Imperial Army with the rank of lieutenant-general or full general; so that the government is still more or less military in nature. The Governor-General has under him not only the administration of the province but command of the troops guarding it, and he is subject only to the Minister of Foreign Affairs in regard to civil administration, and the army authorities in Tokyo as regards military matters. He is authorised under special commission to conduct negotiations with the Chinese authorities. The Governor-General may issue punitive ordinances inflicting penalties of not more than one year's imprisonment and a fine of not more than 200 yen. Thus the office of Governor-General consists of two departments—Civil and Military. The Civil Administration Department comprises such sections as General Affairs, Police and Law Courts, Finance, Engineering, Education, Communications, Public Health, Marine, and so on, and it exercises its powers mainly through branch offices, sub-branches, as well as district and village offices. The chief administration offices are at Port Arthur and Dairen. The control of land along the railway zone is in

charge of the police, while Japanese consuls in South Manchuria act as commissioners for the Kwantung Government. Provisions for the judicial administration of the province do not differ materially from those in Japan, except that deference is sometimes made to Chinese customs. Local courts are invested with all the rights of judgment in civil and penal cases which do not come under the local administration offices, but appeals may be made to the High Court against the latter or against the local court. The Russian prisons were taken over and improved by the new administration.

AGRICULTURE, INDUSTRY, AND TRADE

LAND in the Province of Kwantung is generally adapted to agriculture, especially in the districts around Chinchou, with considerable recent development around Port Arthur and Dairen. The total area of arable land in the province is about 245,000 acres, or less than 23 per cent of the whole area, and the number of farmers is about 350,000. The chief agricultural products are maize, Indian millet (which the natives call *kaoliang*), Italian millet, soya beans, rice, wheat, buckwheat, and vegetables. In foreign trade the soya bean is coming to play an increasing part, the annual export amounting to over 8,000,000 tons, of which some 50 per cent goes to Europe. These figures represent all Manchuria, but a large part of the crop, as well as of the beancake and bean oil, passes through Dairen. Grapes are also successfully cultivated, and the Government experimental station is promoting the growth of pears, peaches, cherries, and apples. Stock-farming and poultry-raising are yet in a nascent stage but showing considerable development, the chief animals being horses, cattle, mules, asses, goats, sheep, pigs, and poultry. Seri-

culture is being encouraged, but is making only slow progress. Forest resources are poor owing to denudation, but the administration is doing everything possible to promote afforestation, planting out some 10,000,000 seedlings annually. As the Province of Kwantung faces the Yellow Sea on the one side and the Gulf of Pechili on the other, fishing resources are rich. There are over 18,000 fishermen and some 4,000 boats now engaged, the annual catch being valued at over 500,000 yen for natives and 300,000 for Japanese. The best fish are tai and cod.

Among the more important industries of the province is the making of bean oil, while beancake manufacture is fast increasing. The old-fashioned oil presses formerly used by the Chinese are, under Japanese auspices, fast giving way to modern hydraulic, steam, or electric presses, which secure a far greater percentage of oil. The more than 70 factories now in operation make over 80,000,000 pounds of bean oil and 20,000,000 pieces of beancake annually. The brewing or distilling of spirits from Indian millet is another growing industry, though as yet on a small scale, while soy-making is fast increasing. The manufacture of brick promises to become a growing and profitable industry, as is also the making of roof-tiles. Lime and oyster-shell works are doing a good business, and there is a good outlook for cement. Glass works under Japanese auspices have sprung up in various towns, and there is a large number of flour mills, though the industry seems stationary. The match industry is making remarkable headway, and also tobacco industries. The salt fields of the province have been repaired by the Japanese and the output greatly increased, the quality being far superior to that produced in Japan. The mining enterprises of Kwantung appear to be making but

indifferent development. Gold, alluvial gold, iron, coal, and building stone are the chief minerals, but are found in no very paying quantities. Three gold mines and one coal mine are being worked by Japanese, but none of them have advanced beyond an experimental stage. An asbestos mine at Hoshang-tun is said to offer rich deposits.

The import and export trade of Kwantung has made remarkable progress since Japan took over the territory, the main expansion being in the direction of Japan herself, which stands for more than one-half of the total trade. In accordance with the agreement concluded in June, 1907, between Japan and China respecting the establishment of a maritime custom house at Dairen, it was decided to make the whole leased territory a free zone. That is to say, goods brought by sea to Dairen are subject to import duties only when they cross the boundary of the leased territory into China, and those coming from China into the leased territory pay export duties only when they are exported from Dairen. For the collection of these import and export duties a custom house under the control of the Chinese Government was established at Dairen on July 1, 1907. The value of the various commodities exported and imported through Dairen (Dalny) in 1915 was as shown in table below.

Owing to the extent of boundary line between the leased territory and China it is very difficult for the Chinese authorities to prevent smuggling of goods across the line, and as these goods enter Kwantung duty free they can undersell all competitors in China.

FINANCE AND BANKING

THE expenses of the Kwantung Government were, from the time of Japan's occupation, defrayed from the extraordinary war fund, but after the closing of that account the annual expenditure of the Kwantung Government was placed under a special account, the principle of which was to make revenue meet expenditure as far as possible and make up deficits from the national treasury. The expenses of local administration are met for the most part by local revenue so as to impress vividly on the population the connection between the benefits they enjoy

and the burden they bear financially. With this end in view the expenses of education, finance, sanitation, encouragement of industry, building, engineering, relief work, and public works are met from local business and miscellaneous taxes. The revenue for 1917 was as follows:

| REVENUE | |
|---|------------------|
| Ordinary: | Yen |
| Taxes..... | 269,000 |
| Public undertakings and State property..... | 1,734,207 |
| Stamp receipts..... | 94,581 |
| Miscellaneous receipts..... | 62,192 |
| <i>Total</i> | <i>2,159,980</i> |
| Extraordinary: | |
| Sales of State property..... | 28,784 |
| Surplus from preceding year..... | 287,306 |
| National Treasury Grant..... | 2,007,000 |
| <i>Total</i> | <i>2,323,090</i> |
| <i>Grand Total</i> | <i>4,483,070</i> |

| EXPENDITURE | |
|--------------------------------|------------------|
| Ordinary: | Yen |
| Kwantung Government..... | 550,605 |
| Law courts and prisons..... | 141,223 |
| Police..... | 867,598 |
| Education..... | 440,948 |
| Communications..... | 1,065,711 |
| Marine Bureau..... | 80,269 |
| Miscellaneous expenses..... | 22,023 |
| Reserve funds..... | 120,000 |
| <i>Total</i> | <i>3,288,377</i> |
| Extraordinary: | |
| Various undertakings..... | 934,693 |
| Land investigation..... | 100,000 |
| Investigation of industry..... | 10,000 |
| Local expenses deficit..... | 150,000 |
| <i>Total</i> | <i>1,194,693</i> |
| <i>Grand Total</i> | <i>4,483,070</i> |

The silver currency system prevailing in the province Japan has replaced by a gold standard, but silver and gold are alike now used. In the principal transactions of trade, convertible notes of the Bank of Japan are largely used, as well as (until recently) the notes of the Dairen branch of the Yokohama Specie Bank. This power is now held by the

Bank of Chosen which established the Dairen branch in 1913. (See report of Bank of Chosen.) With the rapid development of business, credit institutions have increased, the Seiryu Bank establishing a branch in Dairen in 1909, and the Taishin Bank a branch the following year. The industries that chiefly benefit by the facilities afforded by the banks, particularly the Bank of Chosen and the Yokohama Specie Bank, are cotton yarn, cotton cloth, sugar, matches, cement, beer, marine products, and timber. The Government at first provided the Yokohama Specie Bank with a sum of 3,000,000 yen at two per cent, or some such low rate of interest, which enabled the bank to extend accommodations in Kwantung at rates much less than other banks, thus bringing down the loan rate from ten to five per cent. Complaints have been raised, more especially by foreigners, against these trade advantages thus conferred on the Japanese in Manchuria, enabling them to undersell their competitors, but the Japanese deny that there is any discrimination. Besides the banks named, there are the Dairen Savings Bank, the Russo-Asiatic Bank, the Chugoku Bank, and the Tatsunokuchi Bank.

THE BANK OF CHOSEN, DAIREN BRANCH

THE Bank of Chosen, which is the central bank of the Peninsula of Chosen, has 14 branches in Manchuria, located in the following places: Dairen, Antung, Mukden, Newchwang, Port Arthur, Liaoyang, Tiehling, Changchun, Szupingchieh, Kaiyuan, Harbin, Fuchiatien, Lungchingtsun, and Kirin. These places are all important in one way or another, but as the port of Dairen is by far the most important, it is in the branch there that the General Manager of all Manchurian branches of the bank is stationed. The position is now filled by Mr. S. Ohta, who is also a director of the bank.

For many years, the bank played a very important rôle in the financial affairs of Manchuria, its bank notes circulating far and wide over the country, and its branches doing good and prosperous business with local governments, as well as with individual merchants, whose confidence in the bank was ever growing. But the most remarkable change in the status of the bank in Manchuria took place only recently, when its bank notes were made the sole legal tender throughout Kwantung Province and the South Manchuria Railway Zone, along which almost all the important commercial centres of Manchuria are located, and all the gold notes of the Yokohama Specie Bank in circulation were transferred to the bank. Besides, the bank was entrusted by the Government of Japan with the handling of its Treasury business in Manchuria.

| | EXPORTS | IMPORTS | TOTAL |
|---------------------------------|-------------------|-------------------|-------------------|
| | Yen | Yen | Yen |
| Japan Proper..... | 28,117,309 | 18,071,820 | 46,189,129 |
| Chosen..... | 428,889 | 1,263,340 | 1,692,229 |
| China..... | 20,247,130 | 14,960,883 | 35,208,013 |
| Hongkong, India, Australia..... | 2,174,355 | 796,310 | 2,970,665 |
| Europe, America and Others..... | 5,798,892 | 4,597,739 | 10,396,631 |
| <i>Total</i> | <i>56,766,575</i> | <i>39,690,092</i> | <i>96,456,667</i> |

In short, it has come to enjoy much the same position as it does in Chosen, that is, that of the Central Bank. As a result, the total circulation of the Bank of Chosen notes in Manchuria, until recently about Yen 6,000,000, has now increased to Yen 10,000,000 or more.

The growing importance in the world trade of the port of Dairen, coupled with the gaining influence of the Bank of Chosen all over Manchuria, through its numerous branches, has made the Dairen branch of the bank the most important financial institution in that vast land. A recent statement of this important branch office of the Bank of Chosen gives its advances at Yen 10,090,000, and its deposits at Yen 4,334,000. An idea of its growth and a conception of the important position it holds in banking in that city may be gained from the following interesting facts:

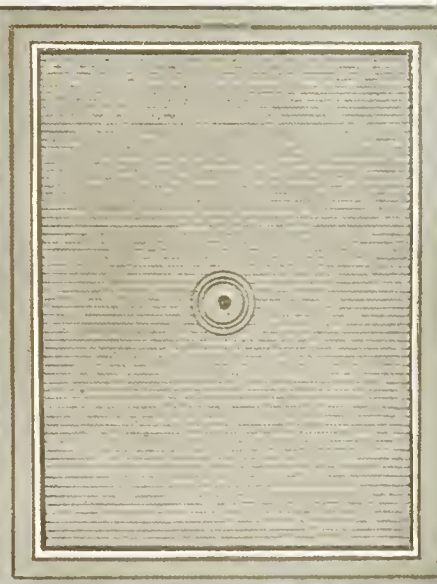
At the end of 1913 the branch had five per cent of the deposits of all the banks in Dairen, and 13 per cent of the total advances made, but at the end of June, 1917,

the deposits were 36 per cent of the total and the advances represented 44 per cent of the total.

The business of the bank has developed to such an extent that the present premises in Dairen have been found much too small.



DINING CAR ON SOUTH MANCHURIA RAILWAY



(LOWER) PRESENT PREMISES OF THE BANK OF CHOSEN, DAIREN. (UPPER) MAGNIFICENT NEW BUILDING NOW IN COURSE OF ERECTION BY THE BANK OF CHOSEN



DAIREN PREMISES OF THE YOKOHAMA SPECIE BANK

Accordingly a new site was obtained near Ohiroba, at a cost of Yen 500,000, and there is now in course of erection a magnificent building, covering an area of 800 *tsubo*, which will undoubtedly add much to the beauty and splendour of Dairen. The staff of the bank numbers 30, but when the new building is complete, and the general enlargement of operations takes place, a staff of over 70 will be employed.

Mr. S. Ohta is General Manager for all the branches in Manchuria. Mr. M. Hashimoto is Manager of the Dairen branch, and the Sub-Managers are Messrs. H. Kuratomi and T. Kurihara. The head office of the Bank of Chosen is at Seoul. Mr. S. Minobe is the Governor and the Directors are: Messrs. T. Mishima, Y. Kimura, and S. Ohta; Auditors, Messrs. C. Ito and K. Hattori. Foreign correspondent banks are: London, the London City & Midland Bank, Ltd., and the Bank of Taiwan, Ltd.; New York, the Guaranty Trust Company of New York, and the National Bank of Commerce; Petrograd, Banque de Commerce de l'Azoff-Don. The cable address is "Chosenbank."

THE YOKOHAMA SPECIE BANK, LIMITED, DAIREN

THE influence, and the enormous extent of the operations of the Yokohama Specie Bank, Limited, would make it indeed surprising if we did not find this famous institution well represented in the progress and development of Manchuria. Branches of the bank are established at every important business centre, and owing to the special facilities enjoyed the Yokohama Specie Bank, Limited, is doing a great deal to further general business interests throughout the territory.

The Dairen and other Manchurian branches were opened at the conclusion of the Russo-Japanese War, especially to help in the colonial development. The bank is authorised by the Japanese Government to issue notes, which greatly facilitate business transactions. Besides the exportation of agricultural products, which is the most important business in this territory, the Yokohama Specie Bank, Limited, finances the importation of several kinds of goods especially required in Manchuria, and also does a general banking business. In

fact, one can hardly overlook the efforts which this institution has made over a long period of years, when speaking of the wonderful developments that have taken place in agriculture and industry in Manchuria.

When first established at Dairen the bank was located at No. 66, Kambu-dori, but to-day the premises are at No. 1 Oyama-dori, where there is a new and handsome building of three stories, specially constructed for the bank. This building covers a site of about 300 *tsubo*, and is constructed on the most modern principles. The Dairen branch employs a staff of 50 clerks. The Manager is Mr. Kunio Inouye, and the Sub-Managers are Messrs. Hideshige Kashiwagi and Kanji Yano. As stated in the general article dealing with the Yokohama Specie Bank, Limited, which appears in another section of this work (page 102), the capital of the bank is Yen 48,600,000, of which Yen 36,000,000 is paid up. The reserves total Yen 22,100,000.

BANK OF CHINA, DAIREN

THE leading financial institution of the Chinese Republic is the Government con-

trolled organisation, the Bank of China, which was established by Imperial decree in 1897, and first opened at Shanghai. Later on the head office was removed to Peking. The Bank of China has extended its operations all over China proper, and is now strongly represented throughout Manchuria, having branches in all the principal cities and other commercial centres. The branch at Dairen is an excellent example, both as regards the elaborate premises and the general organisation, of the progressive policy of the institution.

The Dairen branch was opened four years ago, though the business then taken up had really been established some four or five years previously by the Tai Ching Bank, which was amalgamated by the Bank of China. Mr. Chang Chen Chang, Manager of the Dairen branch, is a graduate of the Commercial College of Waseda University, Tokyo. He was for some years Professor of the Japanese Language at the Military College, Peking, prior to entering the service of the Bank of China, and assuming his important position at Dairen. Mr. Chang is assisted by a staff of fifteen clerks. The bank does a general business, and is highly regarded by all sections of the business community at Dairen.

EDUCATION

THE Governor-General has done a good deal for the promotion of Education in the province, establishing primary schools in various districts and special schools in the larger centres. Schools are maintained both for Japanese and Chinese, and, in addition, there are those maintained by the South Manchuria Railway Company. The principal statistics for education in the province are as follows:

| INSTITUTIONS | NUMBER | STAFF | PUPILS |
|-------------------------------------|--------|-------|--------|
| Primary schools in Kwantung..... | 10 | 108 | 4,127 |
| Primary schools along railway..... | 17 | 105 | 2,618 |
| Port Arthur Technical School..... | | 100 | 219 |
| Kwantung Middle School..... | | 40 | 441 |
| Port Arthur Girls' High School..... | | 18 | 130 |

In addition to the above schools, there are many primary institutions under joint auspices of Chinese and Japanese. The schools under Japanese control are carried on in the same way as those in Japan, except that attendance is not compulsory, and in the schools for Chinese the Japanese language is taught as a foreign tongue.

COMMUNICATIONS

IN the Province of Kwantung and South Manchuria generally, the South Manchuria Railway and its enterprises absorb all interests, throwing in the shade even the Civil



THE BANK OF CHINA, DAIREN (DALNY)

Government itself. After Japan took over the railway from Russia it was transformed into a semi-private concern with a capital of 200,000,000 yen, divided into a million shares of 200 yen each, half of the capital to be held by the company and the other half by the Japanese Government, the capital represented by the company to be taken up by Chinese and Japanese subjects, of which sum 60,000,000 yen have so far been called up. The Government guaranteed a profit of six per cent on the paid-up capital for fifteen years, claiming no dividend on its own shares when the profit is not up to six per cent. The

taken place for this purpose. The question is whether the unification of the railway systems of the two provinces will eventually mean a unification of the provinces themselves.

It would be impossible in any short space to give an adequate account of the enterprises carried on by the South Manchuria Railway. The company has control of over 60,000,000 *tsubo* of land in Manchuria, and all not used by itself or by the Government is let out in farm lots or building lots, more than 12,000,000 *tsubo* being already so disposed of. Besides the usual railway business the company has launched out in various other important enterprises, such as harbour work, coal mines, gas works, electric plants, and hotels. The railway system itself is an immense one, consisting of the main line, 440 miles in length, from Dairen to Chungchun, with a branch of 47 miles to Port Arthur, one of 13 miles to Yingkow, one of 30 miles to the Fushun mines, and the Mukden-Antung line of 170 miles, — 687 miles in all. The line is of standard gauge and furnished with the latest equipment in rolling stock and passenger service, and is now the most important route between Japan and Russia, its international through service being of the very best. The company runs a regular steamer service between Dairen and Shanghai by way of Tsingtau, as well as to South China. The harbour works completed by the company at Dairen, including fine quays and breakwaters, are models of their kind. The collieries operated by the South Manchuria Railway Company include the famous Fushun and Yentai mines, with an output at present of some 2,500,000 tons a year.



SOUTH MANCHURIA RAILWAY COMPANY, LIMITED: ERECTION SHOP AT SHAKAKOU, NEAR DAIREN—YALU RAILWAY BRIDGE, 3,097 FEET LONG
CONNECTING MANCHURIA AND KOREA OVER THE RIVER YALU—ELECTRIC WORKS AT DAIREN



DR. KUNISAWA, DIRECTOR-IN-CHIEF OF THE
SOUTH MANCHURIA RAILWAY COMPANY,
LIMITED

The Fushun coal fields lie 22 mile east of Mukden and extend for 12 miles along the Hun River, with a deposit of from 80 to 175 feet in thickness, the average being 130 feet, a conservative estimate of the whole being 800,000,000 tons. The five pits now in operation do not take out more than 6,000 tons daily. The Yentai mines lie east of Liaoyang, the seams being much thinner than the Fushun mines, and the daily output is not more than 200 tons. The South Manchuria Railway Company has established electric power stations at Dairen, Mukden, Changchun, Antung, Fushun, and Tentai, and runs electric cars at Dairen and Fushun. Its gas works at Dairen and Fushun produce over 100,000,000 cubic feet annually, with much coke and coal tar. The company's fine hotels at Dairen, Port Arthur, Mukden, and Changchun provide model accommodation for travellers along its lines. It also maintains 14 hospitals, 17 primary schools, 10 Chinese schools, 28 business schools, 9 girls' schools and a medical and a technical school, as well as a teachers' training institute, to say nothing of its experimental stations and waterworks. The table given on this page will indicate the extent of the company's business in 1916.

Mention must also be made of the new railway line recently completed by Japan and China, as a joint enterprise, between Changchun, the northern limit of the South Manchuria Railway, and Kirin, a distance of 79 miles, with 12 stations and making a journey of six hours. The Japanese share of the expense of construction, amounting to 2,250,000 yen, was borne by the South Manchuria Railway Company, and is repayable

| ITEM | RECEIPTS | EXPENSE |
|---------------------------------|------------|------------|
| | Yen | Yen |
| Railway service | 23,894,000 | 8,174,000 |
| Shipping | 1,226,000 | 1,220,000 |
| Mining | 12,648,000 | 10,640,000 |
| Harbours and piers | 2,292,000 | 1,921,000 |
| Local undertakings | 1,517,000 | 2,491,000 |
| Hotels | 235,000 | 283,000 |
| Electric undertakings | 1,160,000 | 723,000 |
| Gas | 244,000 | 134,000 |
| Others | 190,000 | 701,000 |
| General affairs . . . . . | ..... | 3,174,000 |
| Interest | 380,000 | ..... |
| Debt charge . . . . . | ..... | 6,244,000 |
| <i>Total</i> | 43,786,000 | 35,795,000 |
| <i>Profits</i> . . . . . | ..... | 8,081,000 |

by China twenty-five years from the date of opening. The South Manchuria Railway Zone is guarded by Japanese troops and special railway guards. One division is stationed as a garrison at Liaoyang, the term of service being two years, when it is succeeded by another division from Japan. Sixteen independent battalions act as independent guards along the line of railway, each composed of 21 officers and 617 rank and file, all under control of the Department of Communications. The headquarters of the various battalions are Liaoyang, Tiehling, Liutszton, Port Arthur, and Haicheng.

With Japan's occupation of the province, post and telegraph offices began to increase, rising from 94 in 1906 to over 200 in ten years' time. At first the various stations along the

railway were authorised to receive and despatch mails and telegrams, and in the meantime regular postoffices were established at leading centres like Dairen and Port Arthur. Mails are carried by rail routes and water routes and by ordinary road routes. The mileage of mail routes by railway is about 6,855; by waterway, 5,800; and by ordinary roads, 710,000 miles. The leading post offices in Kwantung can transact all the usual business of international post and parcel services, as well as the usual telegraph service. The telegraph lines extend through all the more important sections of Kwantung, as well as along the whole length of the South Manchuria Railway, with a wireless service on the coast. The telephone service is not so universal as the telegraph but it is fast



HEAD OFFICE OF THE SOUTH MANCHURIA RAILWAY COMPANY, DAIREN



SOUTH MANCHURIA RAILWAY COMPANY, LIMITED: TEN-WHEEL TYPE LOCOMOTIVE BUILT FOR THE FRENCH INDO-CHINA RAILWAY—TEN-WHEEL TYPE LOCOMOTIVE BUILT FOR USE ON THE COMPANY'S OWN LINE—ENGINE ERECTING SHOP—THE SAW MILL—THE MACHINE SHOP



S. S. "SAKAKI MARU," ONE OF THE SOUTH MANCHURIA RAILWAY COMPANY'S
DAIREN-TSINGTAO-SHANGHAI MAIL AND PASSENGER LINERS

increasing, the chief cities being already connected. The progress of shipping in the province has been remarkable since the Japanese occupation, the total entries at Dairen for steamers being nearly 2,000 a year, representing a tonnage of nearly 3,000,000; and for Port Arthur about 300 steamers, with a tonnage of about 300,000. The number of boats and sailing vessels is, of course, far greater, but of less tonnage, that for Dairen being 3,000 with a tonnage of some 35,000, and for Port Arthur, 815 sailing vessels representing an aggregate tonnage of 6,000.

DAIREN (DALNY)

THE Port and City of Dairen is one of the most modern creations under foreign influence in Asia, its history going back less than twenty years. Until the Kwantung Peninsula was leased to Russia, Dairen was only a fishing village known to the Chinese as Ching-ni-wa. The location is on the Bay



(Left, Upper) Mr. M. KAWABE, President, Bank of Dairen. (Left, Lower) Mr. TSUNEO SUZUKI, President, Dairen Oil and Fat Industry Co., Ltd. (Centre) Mr. Y. TANUMA, President, Dairen Kisen Kabushiki Kaisha. (Right, Upper) Mr. K. INOUE, Manager, Yokohama Specie Bank. (Right, Lower) Mr. Y. IWATO, General Manager, Kawasaki Dockyard Co., Ltd., Dairen



SCENE ON DAIREN WHARF

of Victoria, a small indentation in the larger Bay of Dairen, which in turn is an inlet of the Yellow Sea. As a site for a port Ching-ni-wa impressed the Russians, and they fixed on it as the terminus of the railway through Manchuria. They decided in 1896 to make the place a commercial *entrepôt*, and began to extend the railway through South Manchuria to Lushun and Dairen, giving the latter place the name of Dalny.

Regardless of expenditure the Russians succeeded in conjuring up a new city, and 1898 saw the completion of the foundation works of the modern port and town. Before Dairen could be completed according to Russian plans, the Russo-Japanese War broke out, and after the Battle of Nan-shan, the Russians retreated to Port Arthur, leaving the new city for a time in the hands of robbers and wreckers, who did a great deal of damage before the Japanese formally entered into possession. When peace was declared and the Kwantung Peninsula came under Japanese control, the work of repairing and completing the city of Dairen was taken in hand, and is now practically completed. The Japanese have followed the original Russian plans, and Dairen may now be said to represent a modern and well designed city. It is divided into Chinese and foreign quarters, the divisional strip of land being set aside and used as a public park.

From its excellent geographical location Dairen was destined to become a great commercial centre, and the expectations of the Russian founders of the city have been fully realised by the Japanese. The port being the terminus of the railway system of the South Manchuria Company, receives the great bulk of the ever increasing traffic in Manchurian produce, as also it is the point of entry for the bulk of the imports from Japan and farther afield. It is the distributing centre for an immense territory, and also constitutes an important point in the trans-continental railway system, the South Manchuria Railway Company having established a steamer service with Shanghai and Tsingtao, which brings those cities, as well as Peking, two days, in point of time, closer to London, *via* Siberia. Opened to foreign trade in September, 1904, Dairen at once became a centre of exploitation of the vast natural resources of Manchuria, the Japanese merchants and foreign firms rapidly establishing themselves in the new port and extending their operations inland. The population of Dairen can only be estimated, in the absence of recent official figures, but it may safely be set at about 57,000, of whom the bulk are Japanese. There is quite a numerous community of Europeans, mainly consisting of representatives and the staffs of firms that have opened branches in the port.

Though the official headquarters of the Kwantung Government are at Lushun, Dairen is the real administrative centre and business *entrepôt* of the peninsula, and has many attractive public buildings, such as the Civil Administration Office, Post and Telegraph Bureau, Marine Bureau, Agricultural Experimental Station, Waterworks Office, Meteorological Station and so on. The South Manchuria Railway Company has established very extensive works, in which practically all the locomotives and rolling stock for the Chosen and Manchurian lines are constructed. There are also numerous factory buildings, such as cotton mills and vegetable oil factories. The city is well laid out and quite attractive in its general appearance, the authorities maintaining close watch over sanitation and similar public services. An electric tramway system, modern in every respect, exists, and all the conveniences of a big city are available. Mention must be made of the Yamato Hotel, a magnificent structure, conducted by the railway company, built and furnished in the most elaborate style.

The railway lines running into the city separate the grounds owned by the Government, from those owned by the railway company. The railway is spanned by a handsome steel bridge, known as Nippon-bashi, which cost about Yen 150,000. Dairen railway station stands by the southwest side

of this bridge, which, with the great square which stands at the end of a road running southeast, constitute two centres from which the main streets of the city radiate. A number of the large Japanese commercial houses have their branches in Dairen, as well as a few of the principal British and other firms doing business in the Far East. The head office of the South Manchuria Railway Company and the Government offices are splendid structures.

Public institutions of the port, other than those already mentioned, are the three Japanese Government schools, the Dairen Commercial School, maintained by the Presbyterian Mission, the Girls' Art School, the Municipal Offices, Chamber of Commerce and so on. There are three journals published in the Japanese language. In Dairen all the principal business and private houses, as well as hotels, public offices, etc., are connected by telephone. There are telephones for public use at all the post offices, as well as in automatic telephone stands at the principal centres of the city. The currency of Dairen is the Japanese, nominally a gold standard, but actually paper money, and this circulates freely throughout the Kwantung Peninsula.

Dairen is screened from the cold northern continental blasts by ranges of high hills, and it also faces the Yellow Sea. Its climate is, therefore, milder than that of any other part of Manchuria or North China, the thermometer, even in mid-winter (January-February) seldom falling below 6 degrees below zero (centigrade), while in summer it hardly ever rises above 25 degrees (centigrade). Dairen is essentially an ice-free port, even in the extremes of cold weather. The cleanliness and general sanitation of the port is in the hands of a capable administrative body.

The harbour works of Dairen have been planned and carried out on an extensive scale, the first step having been the reclamation of a long stretch of swamp land on the coast, northeast from the centre of the new town. Two wharves have been completed. The first, known as the East Pier, lies at the east end of the town. Nearby is the second, known as the Great Pier, 1,960 feet long, and with a depth of 28 feet of water—sufficient for ships of over 10,000 tons. The total length of anchorage provided is 8,445 feet. Railway tracks run along each pier, greatly facilitating transportation. Warehouses, cranes, and all modern harbour facilities are provided. On the west of the Great Pier and at right angles to it, there is the Third Pier, which divides the Inner from the Outer Harbour. At its extremity a breakwater 1,221 feet long has been built, and work is now proceeding on a second similar, but



YAMAGATA-DORI, MAIN BUSINESS THOROUGHFARE OF DAIREN—OKU-MACHI-DORI, ONE OF THE IMPOSING BOULEVARDS—OYAMA STREET AS VIEWED FROM NIPPON BASHI



YAMATO HOTEL, DAIREN, ONE OF THE CHAIN OF HOTELS OWNED AND RUN BY THE SOUTH MANCHURIA RAILWAY COMPANY — SOUTH MANCHURIA RAILWAY ELECTRIC PARK, DAIREN, THE CHIEF PLEASURE RESORT OF THE CITY — SCENE IN NORTH PARK, DAIREN

longer, structure, to give greater protection to the anchorages. As a shipping centre, Dairen is always very busy, and for a port only twenty years old, it must be considered remarkably well developed.

The industrial character of Dairen is rapidly becoming emphasised. The port affords great facilities for the effective working of factories, and in recent years many new and substantial industries have sprung up. In themselves, the extensive works of the South Manchuria Railway Company constitute a very important industry, a small town having sprung up around the new works, which cover an area of over 400 acres, and give employment to close on 2,500 hands. Associated with the works are a library, meeting-hall, school, hospital and similar institutions for the welfare of the employees. Then there are the electrical works, from which the city derives its light and power, and the railway company's up-to-date gas works. The oil industry of Manchuria practically centres in Dairen, and many important factories have been established to

treat the soya bean, and extract other vegetable oils and by-products. Behind this important industry the administration of the South Manchuria Railway Company has put all its influence and energy, and the output is rapidly increasing. There are at least half a dozen strong brick companies in operation, and the output of bricks probably reaches 20,000,000 per annum. Lime and oyster-shell ashes are also produced in large quantities.

Closely adjacent to Dairen there are good farm lands within the jurisdiction of the Dairen Civil Administration Office, and on these the greater part of the vegetables, fruits, and similar food products consumed in Dairen, are produced. There is also a growing rice production, near the port, and colonisation projects of a substantial nature will doubtless soon transform all arable lands of the peninsula into rich farms.

Dairen does not present any special features of old historical interest, but it is the starting point for tourists who wish to visit the scenes of the Russo-Japanese War. Lushun, or

Port Arthur, can be visited in a day from Dairen, and has always proved a centre of attraction, the famous fortress being almost exactly in the same condition as when it surrendered to the Japanese after the long siege.

CORNABE, ECKFORD & CO., DAIREN

ESTABLISHED at Chefoo, in 1864, the firm of Cornabe, Eckford & Co., importers, exporters, general merchants, and agents, has extended its operations throughout North China, and may justly claim the position of being one of the leading foreign concerns in this important territory.

The Dairen branch, which is at present under review, was opened in 1906, which goes to show that the firm lost no time, after the termination of hostilities between Japan and Russia, in establishing their business interests in this centre. A large measure of success has attended this important branch, which is now housed in a fine white glazed brick structure, covering about 1,000 square feet, and occupying one of the most valuable sites on Yama-

gata-dori, a few paces from Dairen's central square. The branch is under the direction of Mr. F. Larkins, who is assisted by two other Europeans. Business is conducted under the methods followed by foreign firms throughout China, a Chinese *compradore* and a staff of Chinese clerks being employed. In common with other firms of the port, Cornabe, Eckford & Co. handle soya beans, and the by-products of the beans, together with various seeds and cereals. Imports cover practically all the usual lines, with railway requisites and machinery as a specialty.

The following list of important shipping and insurance companies, for whom Cornabe, Eckford & Co. are agents, will indicate the nature and volume of the business transacted in these two departments: P. & O. S. N. Co., Glen Line of Steamers, East Asiatic Line of Steamers, Russian Asiatic Company Line of Steamers, Swedish Asiatic Company Line of Steamers, Indo-China S. N. Co., Ltd., Garland Steamship Corporation, Lloyds, London, Hongkong Fire Insurance Co., Ltd., Canton Insurance Office, Ltd., Royal Insurance Co.,

Ltd., Sun Fire Office, Yangtze Insurance Association, Ltd., Hongkong & Shanghai Banking Corporation, British-American Tobacco Co., Ltd., British Cigarette Co., Ltd., American Asiatic S. S. Co., and the Cie Messageries Maritimes.

The head office at Chefoo is under the direction of Mr. Vyvyan Eckford, son of the founder of the business. His staff comprises seven Europeans, and the business also employs many Chinese clerks and officials. At Chefoo all North China products are handled, but main attention is given to such lines as strawbraids, silk, and bristles for brush-making. The firm has exceptionally large and well built godowns at Chefoo, undoubtedly the best in the port, where imports and exports are inspected and in other ways dealt with. The head office handles the agencies of the Chartered Bank of India, Australia, and China, Mercantile Bank of China, Ltd., Commercial Bank of London, Ltd. Shipping agencies comprise the following: Indo-China Steam Navigation Co., Nippon Yusen Kaisha, Eastern Australian

S. S. Co., Ltd., P. & O. S. N. Co., Cie Messageries Maritimes, Toyo Kisen Kaisha, Mogul Line of Steamers, Canadian Pacific Railway Co., Shire Line of Steamers, Union Line of Steamers, Indra Line, Ben Line, and Glen Line. In the Insurance Department the firm represents the following companies: (Fire) Royal Insurance Co., Ltd., Hongkong Fire Insurance Co., Ltd., London & Lancashire Fire Insurance Co., Imperial Fire Office, Sun Insurance Office, and General Accident, Fire and Life Assurance Corporation; (Life) Standard Life Assurance Co., Sun Life Assurance Co. of Canada; (Marine) Canton Insurance Office, Ltd., Yangtze Insurance Association, Ltd., South British Marine Insurance Co., Ltd., of New Zealand, Germanic, and International Lloyds.

Cornabe, Eckford & Co. are also representatives at Chefoo of the Hokee Lighter Company, Whatai Filature, British-American Tobacco Co., Ltd., Green Island Cement Co., Ltd., Hongkong Rope Manufacturing Co., Ltd., and the Vacuum Oil Co.

There are branches also at Wei-hai-Wei



CORNABE, ECKFORD & COMPANY'S FINE PREMISES ON YAMAGATA-DORI, DAIREN



PREMISES OF THE FIRM OF F. J. BARDENS, DAIREN

and Tsingtao. At the latter place the firm has a staff of three Europeans, and the branch may be expected to play an important part in the commercial development of the port, which is likely to be the centre of considerable interest during the next few years. Cornabe, Eckford & Co. are represented abroad in practically every important commercial centre of the world, which fifty years of experience of the trade with China has been made the legitimate sphere of the firm's operations. This old firm was originally founded by the late Mr. W. A. Cornabe, Andrew Millar Eckford, since deceased, joining the firm some years later. Its development has kept pace with the growth of foreign trading interests in North China, and its history is interwoven with that of the entire territory, in so far as its commercial expansion is concerned.

F. J. BARDENS, DAIREN

IN Far Eastern countries it is usual to find certain names of foreign firms inseparably linked with the progress and history

of trading centres, or territories, and when the pioneer work of those areas is being discussed, a spirit of justice and a desire to give credit to whom credit is due, invariably lead to the mention of the man, or men, who first broke ground for the foreign trader. In point of years, the foreign trade with Manchuria is not so old, but to appreciate the nature of the pioneer work of even fifteen years ago, one has to understand the unsettled conditions that prevailed then, and the dangers and difficulties attendant on the effort to transact business in a distracted country. Manchurian history, so far as the European trader is concerned, includes the Russo-Japanese War, when the entire country was in the throes of a desperate struggle, and a period when reconstruction and adjustment were going on. Throughout these strenuous times, the business now directed by Mr. F. J. Bardens, was carried on.

Mr. Bardens was the first foreigner to establish a business in Dairen, and is rightly regarded as the pioneer of trade there. He located in the port immediately the Russo-

Japanese War was ended and some time before Dairen was opened to foreign trade by the Japanese at the conclusion of the struggle. Mr. Bardens brought to Dairen with him a ripe experience of Oriental business affairs, and a capacity for business acquired in a very good school. He was for seven years in the London office of Messrs. Samuel Samuel & Co., Ltd., and in 1887 came East for that concern, serving as manager of the Kobé office until he entered on business for himself, and blazed the trail in Manchuria. The business established by him at Dairen was for some years absorbed by Messrs. Bush Bros., for whom Mr. Bardens continued to act as Managing Director, but in 1910 he again took over the interests of the concern, and since then has been sole proprietor of the business. Mr. Bardens is trading as a general merchant, importer, and exporter, and holds several valuable agencies. Prior to the war the principal lines handled were drugs, hospital appliances, and explosives. The latter is still the leading feature of the business, but

drugs and similar lines have been largely replaced by wines and spirits, soap essences and so on. The firm has the agencies for W. & A. Gilbey, Ltd., London (wines and spirits), and W. J. Bush & Co., Ltd. (soap essences). Other important items of trade are Colman's products (mustard, other condiments, starch, etc.), Cadbury's cocoa and chocolate, Lever Brothers soaps, etc., and Bradford woollens. Mr. Bardens has the agencies for the Robert Dollar Steamship Line and Lumber Company, and for Carna-



MR. F. J. BARDENS

tion Condensed Milk. The Insurance Department handles the agency work of the following important offices: The Eagle and British Dominions Insurance Co., Ltd., the Yorkshire Fire Insurance Co., Ltd., and the New Zealand Insurance Co., Ltd.

The offices of the firm are located on Yamagata-dori, and, as will be seen from the illustration, are up to date in all respects. Naturally, for the storage of explosives Mr. Bardens has magazines, located on the outskirts of the city. They are specially constructed, of the very latest design for such a purpose. There is a branch of the business at Tsingtao. That Mr. Bardens has experienced such gratifying success during the past decade may no doubt be attributed to the great esteem in which he is held by all sections of the community, European and Japanese. Mr. Bardens, it is interesting to note, speaks and writes Japanese, and the value of such an accomplishment to a business man in Manchuria can not be over-estimated. The



A BUSY SCENE IN THE DAIREN OFFICE OF MITSUI BUSSAN KAISHA

principal of the business under review is a Devonshire man. Mr. Bardens has two sons in the trenches, the eldest of whom was in charge of the Tsingtao office prior to leaving for active service.

MITSUI BUSSAN KAISHA, LIMITED, DAIREN

KNOWING the vigorous and progressive policy of the Mitsui Bussan Kaisha, Ltd., it creates no surprise to learn that the company is strongly represented in Manchuria and is taking a most prominent part in the industrial and economic development of that vast territory. The Mitsui Bussan head

office is at Tokyo. Headquarters for Manchuria have been established at No. 126 Yamagata-dori, Dairen, where the company has fine offices and extensive godowns, all under the direction of Mr. N. Nodaira. Branches are also established at Antung, Feng-tien (Mukden), Kirin, Newchwang, Tiehling, Changchun, Harbin, Kung-chuling, Shan-hai-Kwan, Chin-chow-fu, Kaiyuan, Liao Yuan, Szu-Ping-chieh, Vladivostok, and all main stations on the Chinese Eastern Railway Line.

The Mitsui Bussan Kaisha, Ltd., holds the agencies for Dairen and other ports of the Ellerman & Bucknall Steamship Co. and



BAGS OF THE FAMOUS SOYA BEANS AWAITING SHIPMENT AT DAIREN WHARF



SUZUKI & CO.: THE FIRM'S NEW PREMISES—BEAN OIL MILL OF THE LATEST TYPE, AT DAIREN

the Nippon Yusen Kaisha, Ltd. In the Insurance Department the following companies are represented: Chiyoda Fire Insurance Co., Ltd., Kobé Marine, Transit and Fire Insurance Co., Ltd., Kyodo Fire Insurance Co., Ltd., Meiji Fire Insurance Co., Ltd., Nippon Fire Insurance Co., Ltd., Osaka Marine and Fire Insurance Co., Ltd., Tokyo Fire Insurance Co., Ltd., Tokyo Marine Insurance Co., Ltd., and the Yokohama Fire, Marine, Transit and Fidelity Insurance Co., Ltd. Three very important trading agencies are those for the Onoda Cement Co., Ltd., the Hokuman Flour Mills Co., Ltd., and the Texas Oil Company.

The Dairen and other branches in Manchuria do a large import and export trade, handling practically all lines of natural produce, etc., and general merchandise.

SUZUKI & CO., DAIREN

AMONGST the Japanese firms whose names are familiar throughout the world are Suzuki & Co., whose operations extend throughout Japan and its territories, and

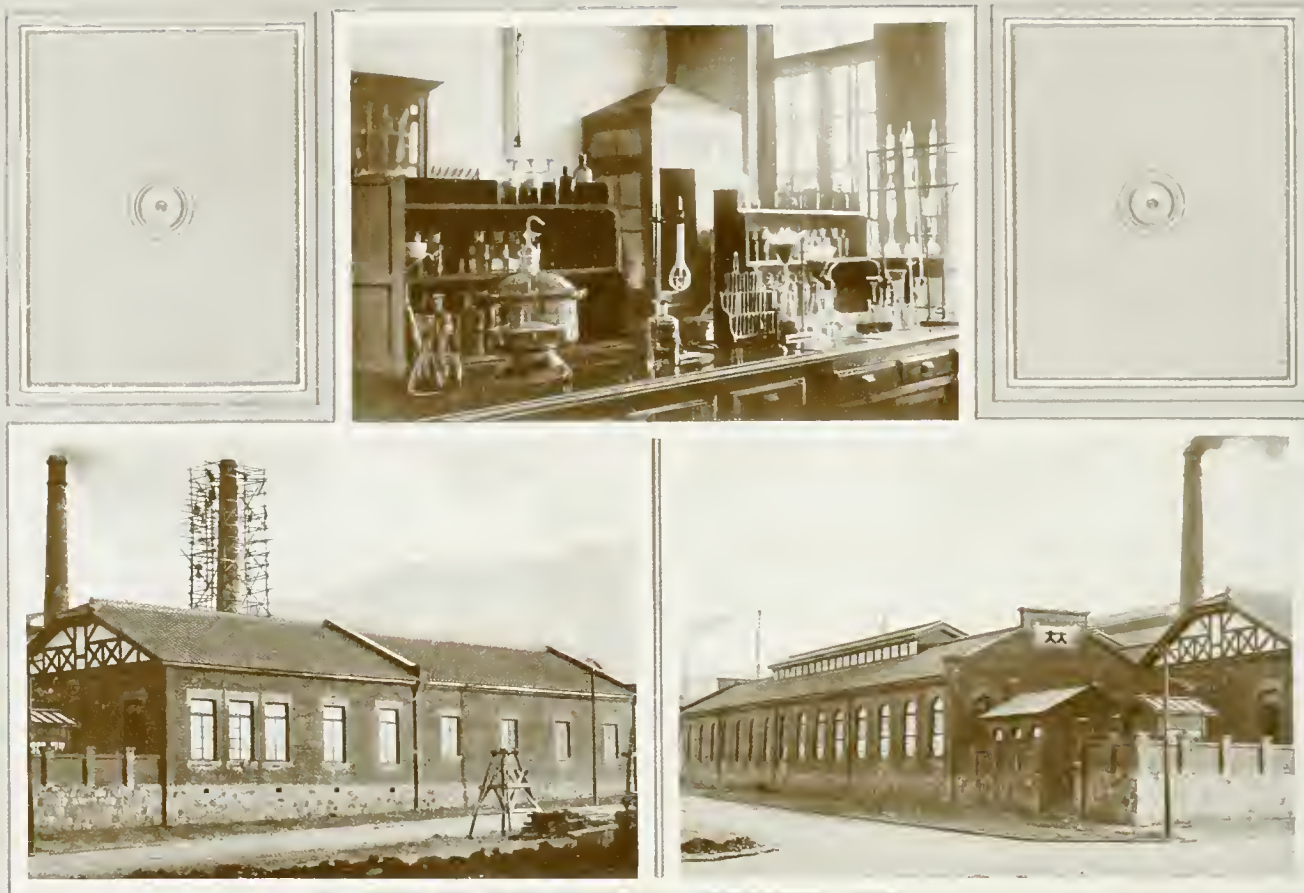
are equally important all over China and in foreign commercial centres. There would appear to be no branch of industry and commerce in Japan to-day with which this powerful house is not connected in some important degree. It is, therefore, no surprise to find that in Manchuria one of the most important vegetable oil mills is operated by Suzuki & Co., nor to notice that the firm's Dairen building is amongst the most imposing premises in this city of fine structures.

The oil mill located at Jijiko, near Dairen, employs a staff of forty for the direction of the coolie labour, and consumes about three hundred tons of bulk beans a day. The soya bean is principally dealt with, but the firm also specialises in the refining of crude oils, both fish and vegetable, and produces fatty acids and glycerine. The oil is exported to the United States, and the bean cake to Japan and the South Sea Islands. It is interesting to note that the Suzuki Oil Mill was once the property of the South Manchuria Railway, but did not produce

in those days more than 50 per cent of the present output. The Dairen branch of the firm was opened in 1909, and is at present under the direction of Mr. Y. Nishikawa, who has been with the firm for ten years, and was appointed Manager at Dairen in 1915. The new premises at Yamagata-dori comprise a fine structure of red brick and granite, erected on a site which measures 400 *tsubo*. A staff of eighty clerks handle the extensive business transacted. Exports dealt with by the Dairen branch of Suzuki & Co. include, as has been indicated, bean and other vegetable and fish oils and by-products, bean cake, hemp seed, and cereals. Imports mainly consist of piece goods, cotton yarn, sugar, iron and steel and machinery, matches, gunny bags, lumber, flour and other sundries. Amongst the important companies represented by the firm are the South Manchurian Products Company, which is really a department of Suzuki & Co., having its head office at Dairen; the Imperial Steamship Co., another Suzuki enterprise with head office at Kobé; the Tokyo Marine



NIPPON BRIDGE OVER SOUTH MANCHURIA RAILWAY, DAIREN



DAIREN OIL AND FAT INDUSTRY CO., LTD.: THE LABORATORY AND TWO VIEWS OF THE FACTORY

Insurance Co., Ltd., the Kōbē Marine, Fire, and Transport Insurance Co., Ltd., the Sun Fire Office of London, the Kanagawa Electric Co. of Tokyo, the Taisho Life Insurance Co., the Teikoku Beer Brewery Co., and the New Zealand Insurance Co., Ltd.

The head office of Messrs. Suzuki & Co. is at Kōbē. There are branches at Osaka, Nagoya, Yokohama, Tokyo, Dairi, Moji, Shimonoseki, Otaru, Hakodate, Sapporo and Asahigawa, Fusan, Seoul, Taipeh, Tainan, and Takao. Abroad the firm has its own London office at No. 29 Mincing Lane, and a New York office at No. 220 Broadway. Other foreign branches are at Seattle, Petrograd, Vladivostok, Singapore, Calcutta, Bombay, Hanoi, Hongkong, Shanghai, Tsintao, Chinan, Tientsin, Hankow, Harbin, and Changchun. The senior partner of the firm is Madame Yone Suzuki, who has been decorated by the Emperor of Japan with the Green Ribbon, for the splendid work she has done in the development of Japan's foreign trade. The Manager of the Kōbē head office is Mr. B. Nishikawa, and the co-partners in this great business are Messrs. F. Yanagida and N. Kaneko.

DAIREN OIL AND FAT INDUSTRY CO., LIMITED

BEAN oil is produced in Manchuria on a very large scale, the export from the port of Dairen alone amounting to over 100,000 tons per annum. Yet, despite the fact that this enormous production has been going on for a number of years, there was no oil and fat industry, dealing with the raw product and converting it into commercial uses, until the formation of the Dairen Oil and Fat Industry Co., Ltd., took place. The necessity for such an industry was first seriously realised by the directors of the South Manchuria Railway Company, and investigations were started in the Central Laboratory of that company, to discover a method for hardening the bean oil. A process was perfected by Messrs. Suzuki and Okada, both masters of physics. Experiments were conducted by these chemists for about a year, and it was demonstrated that by their process the bean oil could be profitably treated for oils and fatty essences. When the question of commercialising the process came up, President Nakamura of the South Manchuria Railway Company thought it would

prove much better to establish a joint-stock company, than to make the industry another monopoly of the railway administration.

Accordingly, on January 17, 1916, Messrs. R. Kawamura, Y. Kubo, K. Yasuda, J. Tochinnai, Y. Suzuki, D. Iwao, K. Ishimoto, Y. Aioi, and H. Nagahama held a promoters' meeting and it was decided to start the Dairen Oil and Fat Industry Co., Ltd., with a capital of Yen 1,000,000, one-quarter of which should be paid up at once. Out of the total of 20,000 shares it was agreed that 7,000 should be allotted to the South Manchuria Railway Company, 10,000 should be taken up by the promoters, and the balance should be available to the public. The promoters' anticipation of public interest in the new industry was sadly at fault, for when the applications came in it was found that instead of 3,000 shares being wanted, the public applied for 153 times that number! With such a bright prospect the company was duly formed on April 26, 1916, the following gentlemen constituting the directorate: Messrs. Y. Suzuki, representing the railway company, K. Ishimoto, Y. Aioi, Y. Kubo, K. Yasuda. The Auditors were

Messrs. R. Kawamura and H. Nagahama.

A parcel of ground of about 3,000 *tsubo* was selected in Dairen and the building of a factory was at once started, the manufacture of the machinery being undertaken at the same time at the works of the South Manchuria Railway Co., at the mouth of the Sha-ho. By September, 1916, the following buildings had been completed: A brick factory, covering 336 *tsubo*; steam boiler house, covering 34 *tsubo*; hydrogen generating room of brick, covering 28 *tsubo*, and offices and godown of brick, covering 180 *tsubo*. In the following month plant and machinery was installed comprising hydrogen generating furnace and storage tank, intermediate manufacturing equipment, original oil refining plant, oil and fat hardening machinery, oil and fat decomposing chamber, glycerine extracting and glycerine vaporising machinery, stearine distilling plant, and glycerine distilling plant. A trial of the equipment was held in October, and in November, 1916,

less than six months after the company was formed, work actually commenced. Owing, however, to the shortage of water that season, the output of the factory could not be brought up to expectations at that stage. Once over the initial difficulties the plant and arrangements ran smoothly, and at present the monthly output of the factory is as follows: 80 tons of hardened oil, 20 tons of stearine, 5 tons of glycerine, and 30 tons of olein. The enlargement of the plant, which was started in August, 1917, is expected to be completed in February, 1918, when it is hoped to increase the monthly output to the following figures: 250 tons of hardened oil, 60 tons of stearine, 9 tons of glycerine, and 30 tons of olein. The company owns the following patents: No. 27,066, for oil hardening process; No. 29,697, method of manufacturing intermediary for adding hydrogen; No. 29,696, hardened oil filtering arrangement; No. 30,643, method for decomposing lime, and No. 38,964, process for pro-

ducing soap fats from oil. These patents have been secured for inventions of Director Suzuki and Chief Specialist Okada.

The principal officers of the Dairen Oil and Fat Industry Co., Ltd., are: Directors, Messrs. Y. Suzuki, K. Ishimoto, and Y. Aioi. Mr. D. Iwao is the Manager, Mr. T. Okada, Chief Specialist, and Mr. S. Sato is the Auditor.

M. KAWABE, DAIREN

MR. KAWABE is very closely associated in a number of ways with the entire commerce and industry of Manchuria, and he has, for many years, been prominently concerned in the development of all trading interests. His business interests are wide and varied, and in view of this fact it is natural to find him regarded in Dairen as one of the leaders of Japanese and foreign commerce. The business in which Mr. Kawabe is most closely concerned is the old established shipping house which was formerly Sung, Mow &



SCENE ON THE MUKDEN-ANTUNG LINE OF THE SOUTH MANCHURIA RAILWAY



PREMISES OF DAIREN GINKO—DAIREN PREMISES OF SUNG, MOW & CO.

Co. This concern was founded in 1902 in Yingkow, and besides conducting the general business of shipping agents, the firm purchased three steamers and started a line of regular freight and passenger transportation between Manchuria and Japan. This was, in fact, the first shipping company established in Manchuria.

After the Russo-Japanese War the business of handling railway cargoes was commenced. In 1905 the Dairen despatch office, which had been in existence some time, was made the head office of the firm, and since then, maritime transportation has been exclusively transacted. In 1910 the North China Steamship Company came into existence, and regular navigation between Antung-Hien, Tientsin, Yingkow and Lungkow, and Dairen was started, the new company having nine steamers. The whole business was, however, transferred to the Manchurian Railway Co., at the latter's request. Thereupon the Dairen Steamship Company, which includes the old Sung, Mow Company's interests, was started by Mr. Kawabe.

To-day that company holds a prominent position as a maritime transport organisation.

Mr. Kawabe, leader of the shipping interests of Manchuria, is also in the forefront of banking. He is President of the Dairen Ginko, an institution with a capital of Yen 1,000,000, and deposits of over Yen 2,000,000. The Dairen Bank is doing valuable work in accommodating local business interests with necessary funds. Mr. Kawabe is a member of the Dairen City Assembly, member of the Dairen Chamber of Commerce, Vice-President of the Dairen Marine Association, and Auditor to the Dairen Sencho Kaisha (silver exchange).

USUI & CO., DAIREN

MR. K. USUI, principal of the Goshi Kaisha Usui Yoko, or K. Usui & Co., is one of the very earliest pioneers of commerce and industry in the port of Dairen. He established himself in business there in 1905 at the close of the Russo-Japanese War, and by enterprise and determination has made his undertaking a distinct success. Mr. Usui

practically taught the soya bean oil business to the Chinese. When he started operations there were only about 500 retailers of the beans, but to-day the industry is one of the staples of Manchuria and gives employment to at least 50,000 Japanese alone.

Messrs. Usui & Co. do a general trade in Manchurian products, specialising in soya beans, oil and cake, which are exported to Japan and to Europe. The extent of the business is something of which Mr. Usui is proud, and he hopes to be able to open up foreign connections and still further develop his important interests. The office of the firm is situated at No. 9 Kanbu-dori, Itchome, Dairen. The cable address is "Usuiyoko," codes used being A. B. C. 5th edition and Western Union.

KAWASAKI DOCKYARD CO., LIMITED, DAIREN BRANCH

THE greatest engineering concern in the Far East is the Kawasaki Dockyard Co., Ltd., the famous Japanese shipbuilding organisation, which has its main works at Kobé, and



PREMISES OF USUI & CO., DAIREN

carries out a gigantic programme of ship construction, as well as general work. This company established a branch yard and works at Dairen as far back as 1906, immediately after the Russo-Japanese War, and has developed the plant as rapidly as the needs of the time have called for. The dock and building yards are, in fact, the only ones in North China, and they certainly are a credit to the company, and speak volumes for its enterprise. A total area of 15,839 *tsubo* is utilised for the dock and works. The dock measures 52 feet wide by 440 feet long, with a depth of over 20 feet on the sill. Men of war, or merchant ships up to 6,000 tons, can be accommodated, and there is a complete equipment for their repair. The shipbuilding yard is capable of constructing ships up to 2,000 tons, and the machine shops, boiler foundry, etc., can turn out engines and boilers, and other machinery for a similar class of vessel. It is planned to install Lloyds surveying machinery and testing plant at an early date. (See also page 717.)

DAIREN KISEN KAISHA

This company was established in February, 1915, and it may be said without hesitation that it has rendered extremely valuable service to the entire trading community of Manchuria and North China, by inaugurating and maintaining fast and regular services between the various ports. Without such transportation facilities business in the entire area would never have developed to the extent that has been the case, and all credit is therefore due to the enterprise of those who founded the Dairen Kisen Kaisha.

Regular steamer services are maintained by the company as follows:

Dairen-Tientsin-Antung Line, six times a month.

Dairen-Tsingtao Line, five times a month.

Dairen-Lungkow Line, seven times a month.

Dairen-Shanghai Line, four times a month.

The company's fleet comprises the following: S. S. *Ryusho-Maru*, 2,880 tons; S. S. *Taisho-Maru*, 2,580 tons; S. S. *Kojun-Maru*, 2,180 tons; S. S. *Hakushin-Maru*, 1,480 tons;

S. S. *Isshin-Maru*, 1,450 tons; S. S. *Tencho-Maru*, 1,300 tons; S. S. *Saitsu-Maru*, 1,100 tons; S. S. *Ryohei-Maru*, 800 tons; S. S. *Risai-Maru*, 700 tons.

The head office of the Dairen Steamship Co., Ltd., is at No. 50 Yamagata-dori, Dairen. There are branches at Tientsin, Antung, Tsingtao, and Kobé, and agencies at Shanghai, Chefoo, Lungkow, and Port Arthur. The registered cable address is "Daiki." Mr. Y. Tanuma is President of the company which has a capital of Yen 2,000,000. Mr. T. Tsukamoto is Director and General Manager. Both these gentlemen have had considerable experience in shipping, and they are regarded as authorities on the development of trade relations between Manchuria and Japan and China.

T. YUASA & CO.

ELSEWHERE in this volume the operations of this important house are described at some length, so that in dealing with the Dairen branch of Messrs. T. Yuasa & Co. it is not



VIEW OF THE PREMISES OF THE KAWASAKI DOCKYARD CO., LTD., DAIREN



DAIREN STEAMSHIP CO., LTD.: S.S. "RISAI MARU"—S.S. "SAITSU MARU"—TIENTSIN BRANCH WITH ONE OF THE COMPANY'S STEAMERS AT THE WHARF—
S.S. "TENCHO MARU"—S.S. "TSSHIN MARU"



PREMISES OF T. YUASA & CO., DAIREN

necessary to do more than explain the main features of the extensive and valuable business which is transacted in Manchuria.

The branch was established as soon as the port was opened to trade at the conclusion of the Russo-Japanese War, but, as will readily be understood, the business was on a much more modest scale than at present. In fact, the great expansion that has taken place would be a surprise to those who knew the business in those early days. Much of the success achieved has undoubtedly been due to Mr. T. Kawai, who has been with the firm for fourteen years, and has managed the Dairen branch since its inception. The present fine offices cover about 100 *tsubo*, and, in addition, the site owned by the firm includes an area of 500 *tsubo* fronting on Dairen's best thoroughfare, Yamagata-dori. As will be seen from the illustrations, the office premises are of the most modern description.

Messrs. Yuasa & Co. handle large quantities of cereals, soya beans, etc. Manchurian products do not cover a wide range, and like other firms, Yuasa & Co. find their business limited to cereals principally, of which the

soya bean and its by-products is the most important. They handle large quantities of beans, oils, seed cake, etc., for export. Principal among the imports are flour, hardware, sugar, cotton yarn, cotton cloth, gunny bags, matches, lubricating oils, roofing paper, etc. The firm is also doing a substantial business as agents for various concerns, one of which is the Paraffine Paint Company of San Francisco. A new department, which the firm has been studying for some time, is the trade in furs and skins. In addition to their export, Messrs. Yuasa & Co. propose to start a curing and tanning house. Visitors to Mukden and other Manchurian fur centres will have remarked that there is much to be done in the way of curing and preparation of skins and furs, and there can be little doubt that Messrs. Yuasa & Co. will develop an important business in this department.

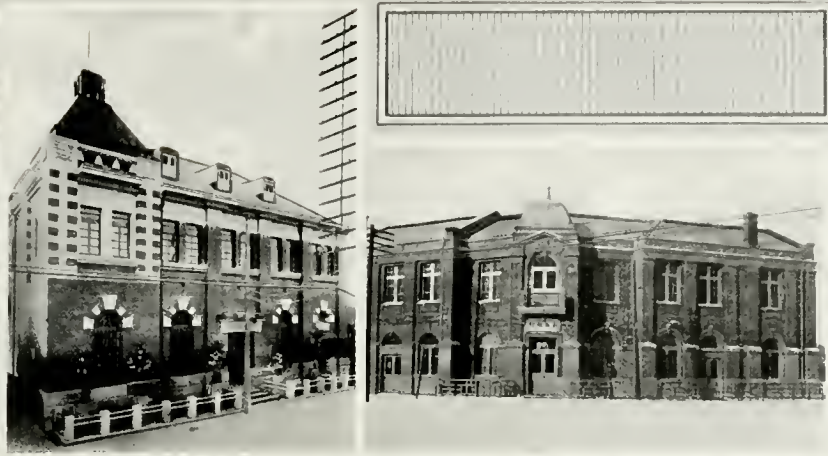
The head office is at Kobé, branches being located in all important centres throughout Japan and the adjoining countries

THOMPSON, HANNAM & CO.

THIS well-known British merchant house has been established in Dairen since 1911,

when the partners, Messrs. Frank Delano Thompson and C. H. G. Hannam, entered into the trade in Manchurian produce, their operations then being confined largely to the export of soya beans, soya oil, and various cereals. Both partners are British born, and have had considerable experience of market and trade conditions throughout the Far East, having been in the service of well-known firms engaged in shipping, insurance, etc., before entering upon business for their own account.

Prior to the war the principal markets of the firm were London, Antwerp, Amsterdam, and Christiania, the United States, up to the outbreak of the war, not being a large consumer of oil or other Manchurian specialties in which Messrs. Thompson, Hannam & Co. deal. The business has now developed into a general import and export trade, the firm being particularly interested in Java alcohol, Calcutta gunnies, coffee, metals, chemicals and drugs, teak, etc. A tin-making plant has also been added to the firm's operations. This factory is capable of turning out 4,000 bean oil cans daily. Under contemplation is the installation of a barrel- and drum-



BANK OF CHOSEN: MUKDEN BRANCH AT SHOSEIKWAN, MUKDEN—THE SUB-BRANCH AT SHINSHIGAI, MUKDEN

making plant, which will be laid down when normal times return. The firm is the only European member of the Dairen Produce Exchange, Mr. Thompson, who has had many years' experience in Mincing Lane, Ceylon, China, and Japan, being a daily attendant at the market.

Messrs. Thompson, Hannam & Co. are prepared to buy or sell Manchurian produce on a commission of one per cent on F. O. B. prices, and this covers all charges for packing,

loading, sampling, and care. The firm has its own forwarding, shipping, and packing department, and controls several godowns where goods can be stored and insured. The firm represents several shipping companies, including the Dodwell, Barber and "Ben" lines. Messrs. Thompson, Hannam & Co. are general agents for the Manchuria Manufacturing Co., and also represent several insurance companies. Their London agents are Messrs. H. D. Thompson & Co., 21

Cullum St., Fenchurch St., London. They represent, among other houses, Messrs. Nichol & Lyons. Ltd., of Kobé.

BANK OF CHOSEN, MUKDEN BRANCH

IN dealing with the history of the Bank of Chosen in a separate article, we have shown how rapidly this institution has extended its operations, and what an important part it is taking in the development of Manchuria. The bank has done a great deal to stabilise the monetary system in that territory, and its notes are now circulated widely. The Chinese have reposed the utmost confidence in the bank, and there is no question that this fact has been due to the broad and healthy policy of the directors, and the splendid efforts which the branch managers have made to foster and assist all local industries.

When the Bank of Chosen came into existence as the old Bank of Korea, in 1909, it took over a branch of the Dai-Ichi Ginko, which had been established at Antung. The Mukden branch was established in July, 1913, and is the second oldest branch in Manchuria. Mr. H. Konishi is the Manager. Some indication of the growth of the business in Mukden is given by the fact that the bank has recently opened a sub-branch in the new section of the city, and this is a great convenience to business men. (See index for other references.)





THE RAILWAY BRIDGE OVER THE YALU RIVER AT ANTUNG, 3,098 FEET IN LENGTH

JAPAN'S COLONIAL EMPIRE

L. CHOSEN (KOREA)

ANCIENT RELATIONS WITH JAPAN—MODERN RELATIONS WITH JAPAN—THE ANNEXATION OF KOREA BY JAPAN—REFORMS INAUGURATED—MODERN RÉGIME—AREA AND POPULATION—FORESTS AND FISHERIES—AGRICULTURE AND INDUSTRY—COMMERCIAL NOTICES—MINERALS AND MINES—TRADE AND COMMERCE—COMMERCIAL NOTICES—COMMUNICATIONS—FINANCE AND BANKING—BANKING AND CURRENCY—COMMERCIAL NOTICES—EDUCATION—KEIJO (SEOUL)—COMMERCIAL NOTICES

KOREA, known to the Japanese as Chosen, the country being anciently so designated, is now an integral part of the Empire of Japan, and the nation's largest and most important colony. How the ancient Hermit Kingdom came to pass under Japan's jurisdiction forms an interesting study in the rise and fall of nations, as well as an excellent illustration of the fate of races neglecting the fundamentals of progressive civilisation. A thousand years ago Korea was Japan's teacher in art, literature, and government. To-day she lies in the dust of ignorance and incompetence at the feet of her old-time pupil, at once a warning and an example to overconfidence and conceit, as well as of the dangers of parasitic officialdom and abounding superstition. Whether the fate of Korea was one that Japan welcomed is not a question that here needs to be considered—most nations stand ready to take the territorial accretions that fall in their way, — but history affords ample

evidence of Japan's more than casual interest in the peninsula from even the remotest period. In the first centuries of the Christian era, Korea was divided into three kingdoms, known as Shiragi, Kudara, and Mimana, and constant disputes between these tribal dynasties gave Japan every chance to interfere, as she was frequently appealed to for aid by one or the other of the belligerents. In return for aid thus given she usually exacted tribute, which gave her the position nominally of suzerain. As peace was resumed and the Korean kingdoms began once more to prosper, they assumed an attitude of independence toward their Yamato neighbour across the straits, which usually aroused the ire of the Island Empire. It is probable that during the early period of Japanese history the coastal inhabitants of both countries preyed ceaselessly on each other, creating a race of sea pirates as bold and terrible as the Vikings of Europe in the same period. After the dawn of authentic history in Japan

we have mention of rebellions against imperial authority among the later settlements from the continent, instigated often by Korean influence, and the Japanese were more than once driven to lead an expedition into the peninsula in retaliation. One of the most noted of these reprisals was the invasion of Korea by the Empress Jingo in the second century A. D., when the kingdoms of Shiragi and Kudara were obliged to surrender and pay tribute to Japan. The Japanese claim that from then down to the sixth century, Mra, at the head of Chinghai Bay, in Korea, was held by them. Though piracy continued, no mention is made of further molestation of Korea until the year 1592, when Hideyoshi, the Napoleon of Japan, having subdued all the recalcitrant daimyo of the Empire, wished to extend the glory of his arms abroad, and decided on an invasion of Korea, purely to satisfy the lust of conquest, as some Japanese historians admit. Landing somewhere near Chinghai Bay, after the

example of the Empress Jingo, the troops of Hideyoshi attacked the Koreans, and for the next eight years plundered and overran the kingdoms of the peninsula, until finally the people in despair invited the intervention of China. Some twenty years later Korea was subjected to a similar process of plunder by China, and it is said the country never subsequently recovered from the effect of these two disasters. After the death of Hideyoshi, Japan and Korea enjoyed peaceful intercourse, and the Tokugawa shoguns, anxious to maintain their long-continued peace as the only means of retaining the shogunate, had an embassy from Korea come to Kyoto once a year for a mutual exchange of felicitations. Owing to impecuniosity, the later shoguns had the place of meeting transferred to the island of Tsushima, where the feudal lord there received the Korean deputies on behalf of the shogun.

MODERN RELATIONS WITH JAPAN

THUS peaceful relations were maintained between the two countries until the Restoration of Imperial Power in Japan in 1868, when an incident occurred which nearly caused war. The new Japanese Government, in courteously informing the Government of Korea of the change that had taken place in Japan, used certain expressions which seemed to the Koreans to claim a position higher than even the Emperor of China. The Koreans officially refused to receive the letter containing such claims, and returned it to those that brought it, with affirmations of surprise and resentment at what they regarded as an unwarranted usurpation of power and dignity. The Japanese authorities were naturally much displeased at the attitude of Korea, and had it not been that wiser counsels prevailed, the incident would have led to hostilities. At that time Japan was not ready for military adventures abroad, and so the matter was allowed to drop. The policy of peace, however, was not approved by some of the more important Japanese statesmen, including the famous General Saigo, who at once resigned from the Government and retired to his native place, determined to overthrow a cabinet which he regarded as having suffered Japan to be insulted. This led to the Satsuma Rebellion some years later, when Saigo commanded a rising against the Imperial forces and was finally defeated.

In 1876 the first treaty of amity and commerce was signed between Japan and Korea, in which Korea was referred to as an independent kingdom having equal rights with the Empire of Japan. This was probably done to remove, if possible, the shadowy



MARSHAL COUNT YOSHIMICHI HASEGAWA,
GOVERNOR-GENERAL OF CHOSŌN

claim of China to suzerainty over the peninsula. China desired to maintain the fiction of Korean independence while evading the responsibility of her alleged protectorate. Japan was determined to have it either one way or the other: either China should assume a formal protectorate and be responsible for Korea, or she should recognise the complete independence of Korea. Her determination to do neither finally brought her into a clash with Japan in 1895. In accordance with the new treaty with Korea, a Japanese Legation was established at Seoul in 1877. For the next five years the relations with Japan ran smoothly, though anti-foreign factions in the Korean administration showed a growing danger which came to a head when the old army incompetents were being replaced by modern recruits under Japanese instructors, the former rising in mutiny, killing the paymaster of the forces, and setting fire to the Japanese legation. The Japanese Minister and his staff escaped, at last reaching the seacoast with great hardship, where the party embarked in a small boat and were finally rescued by a British gunboat. The father of the Korean king, to whose intrigues the anti-foreign policy was due, now resumed office and enjoyed a temporary restoration of power.

Knowing that Japan would be likely to be aroused to resent the treatment of her Minister at Seoul and probably take action, China despatched General Ma with 4,000 troops, supported by a naval squadron, to Seoul. The leaders of the recent disturbances were taken prisoners, the questionable

elements removed from the government, the father of the Korean King taken to China and Yuan Shikai appointed Regent-General to maintain order and reform the administration. The presence of a Chinese official in Seoul gave cause for offence to those who desired an independent Korea; and as the Queen seemed to rely on Yuan Shikai to strengthen her position against Japan, the dissatisfied elements turned to the latter for sympathy. At the close of 1884 a Korean named Kim Gyokkun led a conspiracy to annihilate the whole government at a banquet of the ministers to celebrate the inauguration of the Korean postal service. The conspirators claim that the Japanese countenanced the plot, but there is now no way of proving this. It seems that the plot proved partially abortive, and in the midst of the disturbance the King of Korea sent to the Japanese legation for troops to guard his person, two companies of infantry being despatched. The palace was besieged by the 4,000 Chinese soldiers under Yuan Shikai, and against such superior forces the two Japanese companies could do nothing. The King and Queen ultimately fled to the Chinese camp, and the Japanese Legation, followed by the Japanese residents in Seoul, escaped to Chemulpo. Much damage was done to Japanese property and many Japanese lives were lost. Some of the conspirators took refuge in Japan, and those unable to escape were put to death.

Japan was not yet ready to cross swords with China; and so an agreement was signed between them in 1885 in which both countries agreed to withdraw their troops from Korea on the condition that when the necessity arose for one of the contracting parties to despatch troops thither, previous notice should be given to the other. Thus, while both parties seemed to be placed on an equal footing in Korea, the ascendancy really remained with China, and the arrangement could not hope for permanence. For the next ten years Japan and China were constantly at variance over affairs in the peninsula. Matters came to a crisis, however, in 1894, when a Korean assassin murdered the conspirator, Kim Gyokkun, while he was on a visit from Japan to Shanghai, the murderer being given honours by the Chinese authorities. At the same time China determined to assert her suzerainty over Korea, despatched troops to Seoul under pretence of helping the King to suppress an insurrection, and Japan adopted a similar measure, nominally to protect her subjects in the Korean capital. While negotiations were pending between the two governments, Captain Togo, now Admiral Count Togo, on July 29, 1894, met a Chinese transport loaded with troops and

challenged her to surrender. Upon refusal to do so she was sunk, 1,000 out of the 1,200 on board losing their lives. This brought on the China-Japan War in which the Chinese suzerainty of Korea ended; but as Russia soon after took China's place, the problem of Korea was not yet ended.

THE ANNEXATION OF KOREA BY JAPAN

By the treaty of Shimonoski, April 14, 1895, China ceded Formosa to Japan and recognised the independence of Korea. Japanese advisers were engaged to reform the Korean administration, but their work was rendered difficult by constant political intrigues, until finally they were dismissed. Russia now, instead of China, became the disturbing factor at Seoul. Forcing Japan to withdraw from the Liaotung Peninsula that China had agreed to let her occupy, Russia a few years later leased the same territory herself, and from that time war with Japan was certain. Feeling secure under the wings of a great country like Russia, the Queen of Korea engaged in all sorts of intrigues against Japanese interests, while Russia, both in Korea and Manchuria, strengthened her forces and assumed a more menacing attitude to Japan. Finally a conspiracy was formed for the assassination of the Queen of Korea, when the palace was attacked and she was done to death. The plot was alleged to have had the sanction of the Japanese Minister, Viscount Miura, and he was brought to trial before a Japanese court, charged with the crime; but the Court found that while he was a party to it, he did not actually take part in the murder, and so acquitted him. This episode turned the Koreans all the more towards Russia for protection; and thus matters went from bad to worse until open conflict broke out between Japan and Russia, when the peninsula was saved from becoming a Russian province, as ten years before it was saved from becoming a province of China.

Even now, had the Koreans possessed the slightest capacity for self-government, they might have succeeded in retaining their independence. Up to this time Japan's treaties with Korea guaranteed the independence of the country from foreign aggression on condition that the Korean Government take Japan's advice as to administrative improvements, but after the war with Russia Japan felt it essential that she should have control of Korea's foreign relations, for which purpose she established a residency-general at Seoul, at the same time pledging herself to maintain the welfare and dignity of the Korean Throne. In 1907 the administrative authority of Korea was transferred to Japan and the country made a suzerain State. The



GREEN HILL OF KAZAN

Korean Government was to be guided by the Japanese Resident-General in all matters relating to administrative reform, and obtain his approval of all laws and measures of importance, as well as receive his consent to the nomination or dismissal of all high officials and to appoint to public posts in Korea any Japanese recommended by him. These conditions went on for three years, during which Prince Ito, the first Resident-General, and Viscount Soné, his successor, managed to carry out an exhaustive reform of affairs in Korea. But all these reforms were paving

the way for Japan's absorption of the country into her own Empire. It was evident to Japan, even before the death of Prince Ito, that the office of the residency-general could only be transitional, and when Count Terauchi became resident-general in 1910 he at once proceeded to bring about the formal annexation of the peninsula to Japan. The country was then placed under a governor-general and the royal family given the rank of princes, with provision for their maintenance. In taking over Korea, Japan pledged the extension to the country of all her existing



VIEW OF CHEMULPO HARBOUR



KWANNON PEAKS, KONGO-SAN

SHISHO-HO (CRYSTAL PEAKS), KONGO-SAN

A VIEW FROM THE TOP OF BANBUTSU-SO, KONGO-SAN

treaties, as far as possible, including all privileges granted by her to foreign residents in Japan and protection under Japanese jurisdiction of legally acquired rights of such. Japan, furthermore, promised to maintain the existing Korean tariff for a period of ten years, and for the same period to continue maritime trade between Korean and Japanese ports by vessels of the Powers having treaties with Japan. The pledge with regard to the tariff has since been considerably modified, as will appear under the heading of Trade in Korea. Perhaps the most remarkable thing about the annexation of Korea is the mysterious acquiescence of the United States, in the face of her treaty with Korea pledging the country's independence, and of England, acquiescing in the extinction of her territorial rights without a word.

Thus Japan's frontier is no longer the inviolable sea, but now extends far into the continent of East Asia, and is destined, as some believe, and as many Japanese desire, to extend ultimately into China. How Japan is facing her new responsibilities toward East Asia is a subject of great international inter-

est. Her foreign policy at present involves a predominant interest in China, Korea and Manchuria being used as bases of operation for a defence of this policy, as well as the safeguarding of China from foreign aggression. China, like Korea, is to be allowed to go her own way and save herself if she can, but not by the help of any Western nation. If loss of independence eventually becomes inevitable, China must look to Japan for help, as Japan will permit the interference of no third party. Thus Japan is determined that if the fate of Korea should befall China, to Japan rather than to any Western nation shall be given the jurisdiction over that country. Japan believes that China in the hands of any alien Power would threaten Japan's own independence, and to prevent this no degree of sacrifice will be too great.

Japan's aims, methods, and the results of her administration in Korea will now be more fully discussed.

REFORMS INAUGURATED

From the time that Japan assumed protective responsibility in Korea after the

conclusion of peace with Russia in 1905, she began to take the management of Korean officialdom into her own hands. The Japanese Residency-General was established at Seoul in 1906 under Prince Ito, and the various Japanese consulates in Korea virtually became offices of the new *régime*. The numerous treaties and agreements in the course of Japan's relations with Korea might be more truly termed proclamations or orders in council of the Japanese Government, since the Korean authorities had no choice but to acquiesce in them. On the score of maintaining the welfare and dignity of the Royal House of Korea, one of the first acts of the Resident-General was to separate the functions of the State and of the Court, since the chronic conditions of political corruption with which the Court was infected, influenced all the government administration. The palace precincts were rid of the tribes of fortune-tellers, necromancers, and sorcerers that infested it and the coterie of disreputable court ladies scattered. Superfluous offices, bribes, confiscations and other abuses of power were abolished. Japanese were placed

in all important offices to ensure thoroughness of reform and efficiency of execution.

Needless to say this interference and reform was anything but acceptable to the Koreans, especially to the Royal Court, and the King abdicated in 1907, living in confinement, and was succeeded by his son. To impress the public with the beneficent nature of the new *régime* and its reforms, the new King and the Resident-General made a royal progress throughout the country, bestowing gifts instead of exacting them, as was the former custom, while the presence of the King and Resident-General together on the same mission was intended to convince the masses of the acquiescence of the Royal Court in Japan's policy. The next step was to take the young Crown Prince away from his parents and send him to Japan to receive a modern education, though doubtless the Koreans at first regarded this act as making the young prince a hostage for their good behaviour. The Residency-General now took over the management of all crown lands, the matter being transferred to the Finance Department. Investigations were carried out as to the legitimacy and adjustment of royal debts, amounting to more than one million yen. Considerable expenses were saved not only by the dismissal of hundreds of useless court officials but by the reduction of court ceremonies from 792 to 201 annually.

Investigation and reform mercilessly proceeded from the royal court down to the general administration of the State, where unnecessary or incompetent officials were dispensed with and the salaries of those retained raised above the point of former temptations to bribery. The salaries of all Japanese officials were made not only higher than those of natives of the same rank, but some thirty per cent higher than the same officials receive in Japan proper, on the score that it is difficult to get competent officers to accept office outside the home land. Gradually the powers with regard to taxation and jurisdiction of the provincial governors were transferred to the Central Government under the Resident-General, and administrative districts were left little local autonomy, the functions of governors, prefects, and magistrates being limited to putting into effect laws, ordinances, and instructions issued by the Central Government. The courts of justice, which were largely courts of corruption and bribery, were now brought under the scheme of reform, the regulations for civil and criminal procedure being entirely revised and special codes promulgated, with improvement of prisons. A proper police force was now for the first time organised, numbering over 5,000, as well as a force of *gendarmérie* for the more distant districts, to



A STREET IN JINSEN (CHEMULPO)

the terror of the local inhabitants. Naturally the change was unacceptable to large sections of the population, and rebellion and brigandage began to prevail in many places, all of which was put down with a severe and relentless hand. Much criticism had been made regarding this period of the new administration, especially in respect to its alleged ruthlessness, but the Japanese deny that extreme measures were resorted to more than was necessary. Roads, bridges, and railways were also included in the scheme of

reform leading up to the annexation of the peninsula.

MODERN RÉGIME

AFTER the annexation of Korea the Resident-General became the Governor-General, and was invested with power of almost absolute government over the whole country. He is in command of the army and navy under direct control of the Emperor of Japan, and within the sphere assigned to him commands the defences of the colony.



ANOTHER STREET SCENE IN JINSEN (CHEMULPO)



DIAMOND MOUNTAIN SEA, KONGO

The Governor-General also supervises all the political affairs of Korea and has the right to appeal to the Emperor for sanction through the Minister of Home Affairs and the Premier of Japan. In these duties the Governor-General has the assistance and advice of the Director of Political Affairs. The office of the Governor-General is divided into five departments: Internal Affairs, Finance, Agriculture, Commerce and Industry, and Justice, under the management of directors, councillors, and thirty-six commissioners. In addition to numerous technical experts and clerks, there are officials of affiliated *bureaux* connected with the central council, the railway and the Department of Communications.

The whole peninsula is divided into thirteen prefectures, the governors of which are all Japanese, except five. The central council is an advisory body of fifteen, twenty councillors and thirty-five others, who deliberate on matters submitted by the Governor-

General. The members of this body are appointed by the Imperial cabinet in Tokyo on the nomination of the Governor-General from among Koreans who have held ministerial office under former governments, but the president of the council is always the Director of Political Affairs. The fifteen official advisers alone have the right of voting at meetings of the central council.

The former King of Korea now takes the title His Imperial Highness Prince Yi, and the son is known as Prince Yi, Junior. The royal family of Korea receive the same treatment as princes of the blood in Japan, and an annuity of 1,500,000 yen. Some seventy-five distinguished Koreans, including five members of the royal family, have been granted the rank of peers, making five marquises, three counts, twenty-two viscounts, and forty-five barons, and have been given lump sums of from 200,000 to 50,000 yen, according to rank.

The peninsula is now garrisoned by two

divisions of the Imperial Army, with headquarters at Pingyang near the capital, 884 Japanese and 3,130 native police, together with a large force of *gendarmérie*, the total forces being over 14,000, or one policeman to each six square miles. A new naval station has been established at Chinghai Bay, where some 8,000,000 yen in improvements is being expended.

Korean courts of law come under the direct control of the Governor-General. There are eight district courts with 71 branch courts, three courts of appeal and a supreme court, with 197 judges, of whom 160 are Koreans; 64 public procurators, of whom 54 are Korean; as well as various clerks and interpreters. The total number of cases coming before Korean courts in 1914 was 211,235, of which 17,819 were criminal suits. The number of convicts in Korean prisons is 9,474, of whom 534 are females.

That the entire judicial system of the country should be subject to the Governor-General is not regarded as conducive to impartial justice, as apparently unlimited discretion is allowed to procurators and police. The most conspicuous example of what might be regarded as a miscarriage of justice occurred in 1915 when 123 men, most of them Christian pastors and teachers and students, were arrested and made to implicate themselves, under torture inflicted by the police, in a conspiracy to assassinate the Governor-General. On the confessions forced from them by torture, as they openly testified in court, 105 of these victims were sentenced to various terms of penal servitude. The case was appealed to a higher court, when the number of convictions were reduced to six, which an appeal to the Supreme Court confirmed. As the six victims finally condemned were sentenced on the same evidence as those who had been convicted at the first court and acquitted at the second court, the judicial system of Korea may be said to have ignored the charges of torture against the police and sentenced to penal servitude six men against whom there was no evidence of guilt save confessions extorted by torture. As the victims were mostly Christians the case attracted the attention of the world. Some of the foreign missionaries in Korea were openly accused in court of being accomplices to the alleged conspiracy, and yet they were not permitted to take their stand in court and prove their innocence, which was everywhere regarded as a further miscarriage of justice. It will take some time before the administration in Korea is able to free itself from the suspicions thus aroused and to remove the discredit brought upon it by this remarkable attitude of its judiciary in the episode mentioned.

A great deal of fault is also found with the practice of keeping the Koreans under a system of military government, and always having the Governor-General an officer of the army. Exception is taken to the military system in Korea by even Japanese leaders of thought themselves, as not likely to win the confidence of the Korean people who still see nothing good in their Japanese overlords. The policy of terror pursued during the early stages of Japan's *régime* in Korea has never been forgotten, and it is only by the greatest tact and consideration that the people can be persuaded that their masters mean them good.

AREA AND POPULATION

BOUNDED on three sides by the sea, Korea forms one of the largest peninsulas of East Asia, having an area of about 18,130 square miles and a coast line extending close upon 1,700 miles, with various islands scattered here and there, particularly to the southwest. The official survey of the country is not yet complete, but the Government is expending a sum of some 15,000,000 yen on it, to be laid out during a period of seven years. Towards the north and east the peninsula is mountainous, the elevations being chiefly devoid of trees, though the banks of the rivers Yalu and Tumen have some valuable timber.

The region known as Diamond Mountain is particularly picturesque, its admirable scenery attracting numerous tourists from year to year.

The total population of Korea is officially stated as 17,519,864 in the year 1916, of which 8,415,913 are females. In addition, there is a Japanese population of about 300,000, with some 18,000 foreigners, of whom over 16,000 are Chinese. The annual births of the peninsula are over 450,000, of which about 4,500 are still-born. Deaths number about 275,000 annually. The annual number of marriages is 232,000, of which nearly 10,000 experience divorce annually. The largest centres of population are Seoul with about 230,000, and Fusan with over 111,000, none of the other cities reaching 50,000. The Japanese population is fast increasing in the colony and in a few years will wield a predominating influence, especially as the Japanese language is being imposed on the Koreans.

FORESTS AND FISHERIES

FOR centuries before Japan's occupation of Korea no care was taken of forests and consequently more than 75 per cent of the forest area of the country has been ruthlessly destroyed by fire and the axe of the woodman. Areas properly regarded as forests still cover

some 27,000,000 acres, however, or about 40 per cent of the total area of the country. The species of tree most important are pine, birch, oak, and walnut, with others indigenous to the Orient. The absence of trees in the more inhabited portions of Korea, however, is a tremendous handicap to the progress of the country, as there is no material for fire-wood and the construction of houses, while the general deforestation also injures agriculture. The Government has established a model forestry station and nursery gardens under supervision of Japanese experts, and every effort is being made to replant the bare hills and mountains throughout the country. A special course in forestry has been added to the Agricultural and Industrial Model Station at Suwun, the graduates from which are employed by the Government at various forestry stations. A Bureau of Forestry has been established and special legislation has been directed toward the protection of forests, while conditions in the interest of forests are made upon the sale or lease of public lands. The custom of observing Arbour Day has been inaugurated, which results in the planting of some 15,000,000 young trees annually, while the yearly planting of trees by the Forestry Bureau amounts to over 35,000,000 more. The valuable timber forests along the Yalu



FUSAN FISHERIES



FISH MARKET, FUSAN

River are being carefully exploited by the Japanese, great quantities of fine trees being brought to the home market every year. The Government's timber stations on the Yalu and the Tumen Rivers command a forest acreage of about 4,410,000, yielding more than half a million yens' worth of timber annually, and over a million yen in value of sawn lumber. The most important trees exploited are pine, spruce, white fir, oak, birch, lime, ash, yew, elm, poplar, and cherry.

The fishing industry of Korea brings a rich return since the introduction by Japanese fishermen of methods more skilful than those previously adopted by the natives. The latter resorted only to catching fish near the coast with crude appliances, but now they vie with the Japanese in deep-sea fishing. As many as one hundred species of marine animals are secured for food or to supply raw material, including fish, shells, and seaweeds used in the making of gelatine. An official department deals with the marine products by way of inspection, research, and pisciculture, about 3,000,000 young salmon and 2,000,000 young trout being set free in the rivers annually. Lobster basins have been constructed in large numbers and a good deal of money spent on experimental work. The 13,851 Korean boats in operation have an annual catch valued at over Yen 6,000,000 in round numbers, while the 6,011 Japanese boats take fish to the value of Yen 5,500,000, almost twice the value, per boat, of the native craft. The main lines of fishing industry are in cod, *guchi*, and herring, but sardine, yellowtail, shark, perch, and whale are also taken in Korean waters.

AGRICULTURE AND INDUSTRY

KOREA being almost wholly an agricultural country, farming is naturally the most important industry. The farms are on a very small scale and owned mostly by landlords. The Government has taken an active and intelligent interest in agriculture, encouraging the utilisation of the waste lands, estimated to cover some 66 per cent of the arable area of the country, the existence of which is attributable to lack of trees and the ravages of floods in the absence of embankments, drainage, and irrigation. For the promotion of more intensified agricultural industry the Government has taken shares in the Oriental Development Company, a Japanese concern aiming to furnish settlers, farmers, and others in Korea with funds. Reports that the tendency of the company is to absorb and exploit lands formerly held by Koreans are not confirmed by the Japanese authorities, but nearly 4,000 Japanese have already taken up land in Korea, representing an acreage of 320,000 and a value of Yen 20,000,000. The model farms started by the Government for the promotion of cereal cultivation and other staple agricultural industries, as well as the raising of poultry, live stock, and silk, have done much in this direction, the distribution of plants and seeds from these stations, and of agricultural implements and machinery, greatly assisting the ignorant peasantry towards modern methods of production. Special attention is being devoted by the Government to the promotion of sericulture, liberal subsidies being granted to associations for this purpose. The progress of the silk

industry may be seen from the fact that 77,000 sheets of eggs in 1910 grew to 203,780 sheets in 1913, whilst the production of cocoons has nearly trebled and the area of mulberry plantations more than doubled. The model farm experiments in the cultivation of rice, hemp, tobacco, sugar beets, the raising of cattle and in the chemistry and bacteriology of agriculture, have all lent remarkable impetus to these industries. Encouraging results have also been obtained in the improvement of fruit trees and vines, chiefly apple, grape, chestnut, walnut, pear, persimmon, and peach. Cotton planting increased from 120 acres in 1908 to 63,000 acres in 1913, the production now being about 50,000,000 pounds annually, though of a coarser fibre than Indian or American cotton. Plans are being put into operation to increase the acreage under cotton to 250,000. Ramie and hemp are also cultivated extensively in various provinces. Rice, of course, is the staple food of Korea, supplemented by wheat, barley, and red beans. Under Government inspection of output rice is being brought to a higher standard, but as yet no more than seven and a half out of a total production of 750,000,000 bushels is of improved quality. The annual crop of wheat and barley amounts to about 30,000,000 bushels, beans 16,000,000, and millet 17,000,000. Upon the yield of beans much of the Korean farmer's financial condition depends, as this is one of the most important exports to Japan, where it is used for making soy, oil, and soap. At present the crop reaches only 12 bushels of beans per acre and the annual value is only some Yen 5,000,000. Tobacco cultivation is carried on chiefly in the southern districts where, notwithstanding great improvements introduced by the authorities, the annual crop is not worth more than Yen 3,000,000, and does not begin to meet the domestic demand which consumes some Yen 8,000,000 in value annually. The growing of ginseng, a medical root highly valued by the Koreans and Chinese, is a Government monopoly, bringing in some Yen 2,500,000 of revenue every year. Live stock is raised as a by-product of agriculture, cattle, horses, goats, and pigs being found everywhere in the country. Korean cattle are valued for their size and their beef, and large numbers are exported to Japan and Russia. Though efforts have been made at improvement of breeds no apparent increase has taken place. In 1913 cattle numbered 1,211,000; horses 50,650; donkeys 13,225; mules 802; pigs 761,186; goats 10,456; fowls about 5,000,000.

When Korea was taken over by Japan native industries were in rather a primitive condition. Even ceramics and weaving, in which Korea at one time had been the teacher of Japan, were fallen into neglect and decay.



MARKET AT TAIKYU, THE LARGEST IN CHOSEN

Apart from the little that was done in the way of weaving, paper making, tanning, knitting, metal and bamboo work, there were no special industries to speak of. The Koreans, however, are very deft with the hands, as may be seen from their ancient fabrics and other works of art, and all that is necessary to improve the industrial output of the peninsula is leadership and education. To encourage the further development of industry the Government has established training and technical schools, printing offices and brick factories. The principal industries carried on by Japanese in Korea are rice-cleaning, iron works, brick and tile making, electric enterprises, lumbering, brewing, and tanning, with an annual output valued at some Yen 28,000,000, employing 17,000 hands, of whom 13,000 are natives. In 1915 the 13 electric companies in Korea had a capital of Yen 10,850,000, and were generating 8,100

kilowatts, the largest concern being the Seoul Electric Company, with a capital of Yen 6,000,000, supplying power for street railways as well as current for illumination. The total capital invested in enterprises in Korea in 1915 is shown in table below.

The principal industrial products of Korea at present are textile fabrics, paper, pottery, metal ware, manufactured tobacco, brewed drinks, and leather, most of which are under Japanese auspices. Few of the native industries are on a large scale, all being carried on as subsidiary house industries, and the output is quite insignificant, and unequal to the home demand. Under Government encouragement some of the notable arts and crafts that flourished in ancient Korea show some signs of revival, especially in such lines as weaving, silk, and paper. Wages in Korea are very low, being not much more than half what they are in Japan.

THE ORIENTAL DEVELOPMENT COMPANY, LIMITED

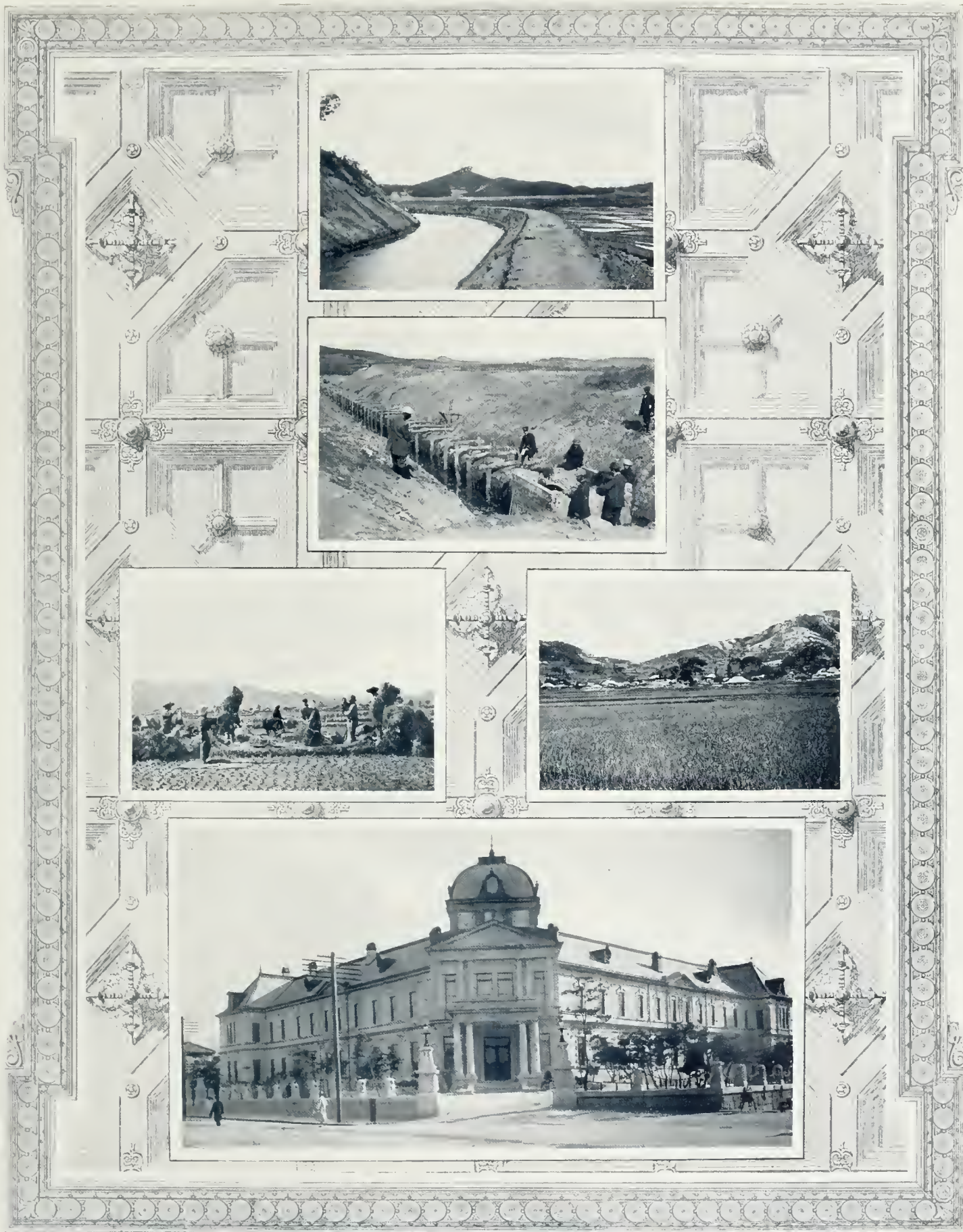
THE Oriental Development Company was organised on the twenty-eighth of December, 1908, about two years previous to the annexation of Korea to the Empire of Japan, by virtue of special laws of Japan and Korea respectively, with a view to opening up the natural resources of the peninsula under the auspices of both Governments and with their coöperation, not only to facilitate the mutual economic expansions, but also to promote the welfare of the two countries in common.

In consideration of the nature and functions of the company, the Government of Japan has granted to the company a subsidy of Yen 300,000 per annum, for the period of eight years since its formation, and also the privilege of issuing debentures, guaranteed by the Government to the extent of ten times the amount of its paid-up capital.

The principal officials of the company were newly appointed, in October, 1916, by the Government as follows: President, Mr. Yeizo Ishizuka; Administrators, Viscount Naohira Matsutaira and Messrs. Tsunero Kawakami and Umekichi Takase; Supervisors, Messrs. Tokuzo Shima, Gennosuke Fukumoto, and Chyo-Chintai.

The law regulating the company was also revised in July, 1917, introducing very

| CLASS | NUMBER | CAPITAL | PAID UP |
|-------------------------------|--------|------------|------------|
| | | Yen | Yen |
| Agricultural companies..... | 21 | 14,223,000 | 12,208,233 |
| Industrial companies..... | 42 | 7,501,300 | 3,133,728 |
| Commercial companies..... | 111 | 27,379,520 | 18,827,465 |
| Transportation companies..... | 21 | 4,086,500 | 2,025,500 |
| Others..... | 14 | 2,796,800 | 2,396,455 |
| <i>Total</i> | 209 | 56,977,120 | 38,591,381 |



TOYO TAKUSHOKU KABUSHIKI KAISHA (THE ORIENTAL DEVELOPMENT CO., LTD.): VIEW OF FARM LAND AND RICE FIELDS—LAYING AN IRRIGATION PIPE LINE—TWO VIEWS SHOWING TANGIBLE PROOF OF THE COMPANY'S SUCCESS—THE HEAD OFFICE AT SEOUL

important modification towards expansion along the lines of business in kind and degree, with a view to meeting the needs of the time.

The following are the capitulations of the general features of the company under the new régime:

(1). The object of the company is to engage in development enterprises in Chosen and foreign countries, such business as furnishing development funds or others, establishing its head office in Tokyo, and branches or sub-branches in Seoul, Mukden, and any other convenient places.

(2). The company carries on the following business: (a) Furnishing funds necessary for development; (b) Agriculture, irrigation works, and the acquisition of, working and disposition of, lands necessary for development; (c) Invitation and distribution of settlers necessary for development; (d) Construction, sale or purchase and lease or rent of buildings necessary for development; (e) Furnishing settlers or farmers with articles necessary for development; (f) Working and managing lands entrusted to the company; (g) Enterprises necessary for development.

(3). The Government has granted the immunity to the company, besides the subsidy which was completed in 1916, exempting it from all dividends to be made on 60,000 Government shares, for the period of another eight years from and on the first of April, 1917.

The sphere of operations of the company has been thus far extended beyond Chosen, covering, at present, the greater part of South Manchuria and East Mongolia in China, as well as overseas in the South. Nevertheless, the centre of the company's economic activity rests in Chosen, with the resources of 73,000 *hectares* of cultivated land consisting mainly of rice fields, and with the loans above 10,000,000 yen in total which were made to farmers, Agricultural and Industrial Banks, and other public or private corporations, etc.; besides the amount of 2,750,000 yen being furnished to 15,000 settlers, of 2,900 families all together, as the cost of allotted lands and settlement expenses by the end of the year 1917. Reclamation and irrigation schemes have been projected and worked on a large scale, bringing waste land into cultivation for rice, the staple product of the Orient. Afforestation, including a bamboo plantation, has also been carried out with much success.

The Seoul branch manages and controls the business operations in the peninsula, equipped with sub-branches in several important localities, under the supervision of Mr. Kawakami, the Resident Administrator of Chosen and Director of the Working Department of the company.



A SCENE IN A MARKET PLACE, SHOWING SAMPLES OF GRAIN DISPLAYED IN STRAW TRAYS

The Mukden and Dairen branches, both of which were set up quite recently, are very busily engaged in the lines of business, especially in the supplying of development funds, under the supervision of Mr. Takase, the Resident Administrator in China and Director of the Banking Department of the company.

The Tokyo head office superintends the business affairs of the company in general, under the presidency of Mr. Ishizuka, aided by Viscount Matsutaira, the Administrator in Tokyo and Director of the General Affairs Department of the company, and by the two other administrators above mentioned.

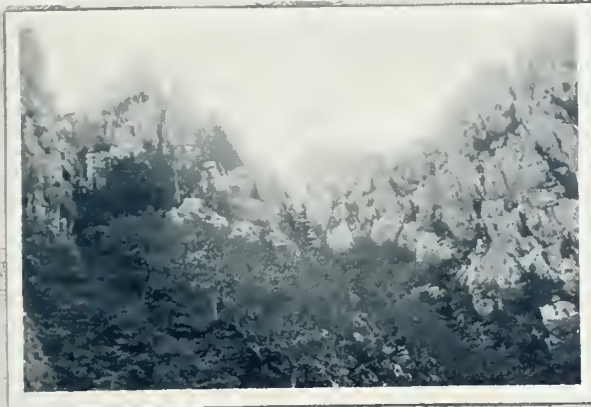
The company is now operating with a capital of 10,000,000 yen, fully paid up, and with a fund of 37,000,000 yen raised by debentures in home financial circles and in Paris. The business conducted by the company is in a new economic field, and of a highly complicated nature, yet so efficient are their methods that they are realising in a marked degree the special mission for which they are organised, namely, the development of agriculture and industries.

FUJII INDUSTRIAL DEVELOPMENT CO., LIMITED

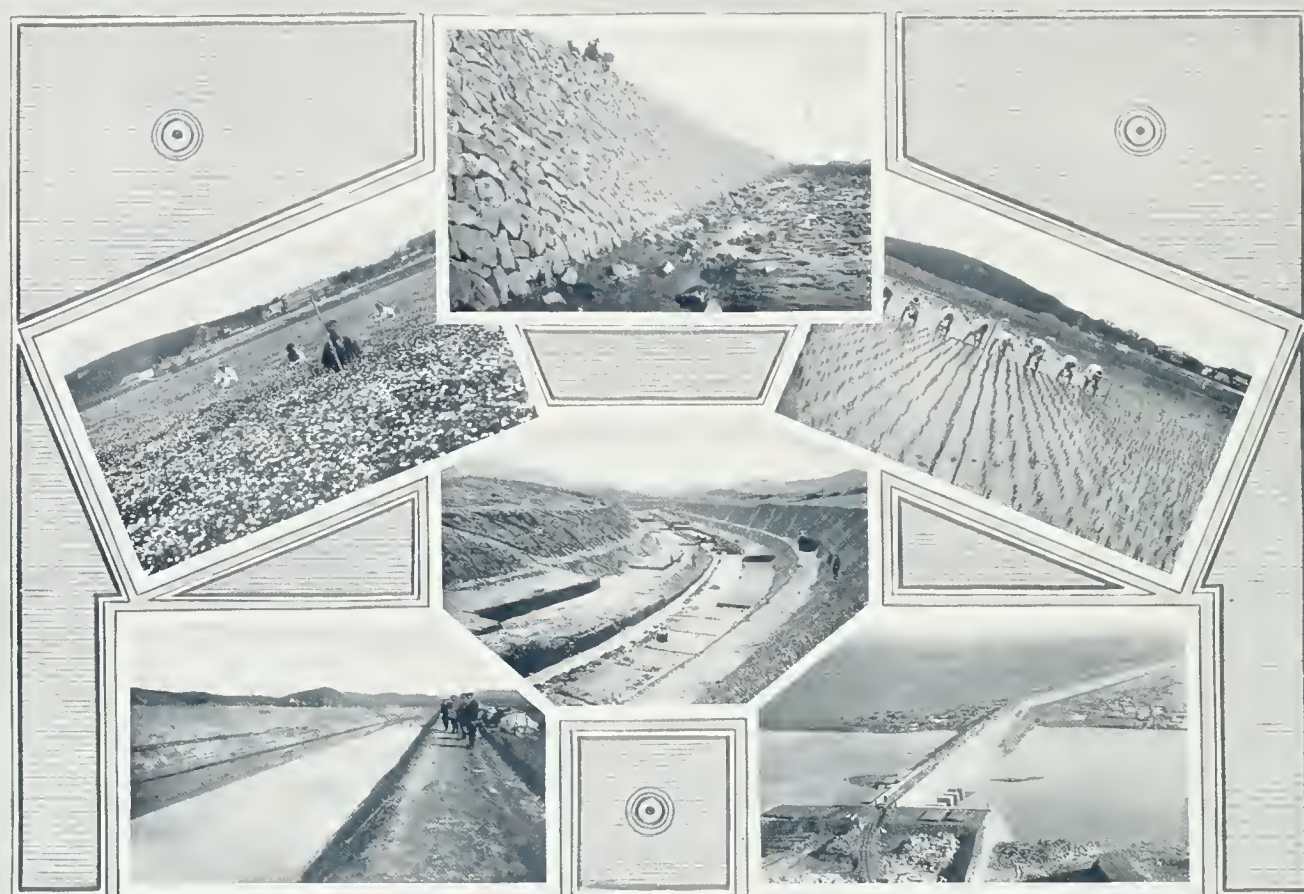
A GREAT deal of the credit for the rapid growth and improvement of the industries and the general economic situation of Chosen is due to the splendid manner in which certain of the big development and colonisation companies have taken hold of the problem of enhancing the natural resources of the

country. An instance of such work is to be found in the record of the Fujii Kogyo Kabushiki Kaisha, or Fujii Industrial Development Co., Ltd.

This organisation was promoted by Mr. Kantaro Fujii, who has taken the greatest interest in the development of Chosen ever since he has been in the country. Mr. Fujii has always been specially interested in the opening up of a large tract of land which stretches from Ryugamno, near the mouth of the River Yalu, to Rikaho, *via* Jikoho, and this is now the scene of his company's extensive operations. This area is known to be fertile, but before it could be put to any use, the water difficulty had to be solved, and much embankment and similar work undertaken. Given a sufficiency of water for irrigation purposes, the area is estimated to be capable of producing seven *koku* of unhulled rice per 300 *tsubo*. Mr. Fujii took up the question of irrigating this tract of country. He formed the Rinyeki Water Utility Association, and had all plans completed by June, 1911. At this time he was also the Managing Partner of the Fujimoto Goshi Kaisha. Mr. Fujii realised that as the water difficulty had been met, the next step was to proceed with throwing the land open for farm and pasture. In June, 1912, the agricultural quarters of the Fujimoto Goshi Kaisha were established at Zenhoku, and Mr. Fujii then made a close investigation of the agricultural possibilities of the area referred to above. Finding it to be a promising district for the growing of rice, under proper management, he applied



SHIN-BANBUTSUSO, KONGO-SAN — VIEW OF HIHO-BAKU, KONGO-SAN-BANSOTEI (REST HOUSE), BANBUTSUSO, KONGO-SAN — BANSO-DAKI (FALL) IN BANBUTSUSO (ROCK OF MYRIAD ASPECTS), KONGO-SAN — KIMENGAN, KONGO-SAN



FUJII KOGYO KABUSHIKI KAISHA: (LEFT TO RIGHT) ONE OF THE FIRST CROPS—PORTION OF THE SEA WALL CONSTRUCTED BY THE COMPANY—PLANTING RICE ON REDEEMED LAND. (LOWER CENTRE) CONSTRUCTION WORK ON IRRIGATION CANAL—AN IRRIGATION CANAL—THE SEA WALL

for and secured a lease from the Government General of Chosen of about 21,000,000 *tsubo* of land, approximately 17,157 acres.

Work in the direction of irrigating the tract, constructing embankments, and generally improving the area was started in June, 1914. It was found that even the preliminary work of constructing the main embankments along the river called for a large amount of capital, and the company was reorganised as a joint-stock concern, Mr. Fujii being joined in his big undertaking by Messrs. Ukon of Osaka, and Kawakami of Yechigo. The name of the concern was then changed to its present title of the Fujii Industrial Development Co., Ltd., and the capital was fixed at Yen 1,000,000. Then the work of constructing the main embankments was fairly put in hand. This work called for an extraordinary number of labourers, and it was found that as the embankment work was greatly affected by the rise and fall of the tide along the seashore at the mouth of the River Yalu, dredgers were required. The Osaka Iron Works, Ltd.,

built two Priestman dredgers for the company, and on their arrival one was set up at Seikoko, and the other at Shishito. Under this arrangement the work was started from both ends at once and proceeded toward the centre. Embankments of a total length of six and one-half miles were completed, and a spacious area for rice cultivation was ready by the end of 1915.

Meanwhile an association called the Taisho Water Utilisation Association, of which Mr. Fujii is also the President, proceeded energetically with the work of supplying water to the reclaimed ground. Still, the undertaking for both companies was of such a vast and expansive nature that they had to apply to the Oriental Development Co., Ltd., for funds. The application was granted and the work once more proceeded with energy, the area controlled by the Fujii Industrial Development Co., Ltd., now being well supplied with water, and all arrangements being completed to make it available for settlement. The work actually carried out, or to be completed, comprises

the construction of dykes or embankments along the seacoast near the mouth of the River Yalu, to dredge out the shallow swamp lands and convert them into rice fields or grass lands; to construct main and subsidiary canals for conveying water to the fields, and to build roads and other conveniences for farmers.

It is planned to cultivate the grass-grown tracts in 1918, to open up fields in the dredged portions in 1919, and in 1920 the whole of the remaining portions are to be prepared for cultivation. The company intends to plant rice exclusively. Three kinds will be grown, *vis.*, Sekiyama, Shirahige, and Kamen-o. It is anticipated that the land will yield about 7 *koku* per 300 *tsubo*, and as the net area available for rice fields is about 10,500,000 *tsubo*, the yield will be worth, at Yen 5 per *koku*, even taking the average at 5 *koku* per 300 *tsubo*, Yen 875,000. The project is a big one, but it is felt that it will prove highly successful and will amply repay Mr. Fujii and his supporters for the great enterprise they have shown.

MINERALS AND MINES

KOREA is remarkably rich in minerals, chiefly gold, iron, graphite, and anthracite, together with silver, zinc, copper, lead, coal, and tungsten ore. The gold mines were formerly exploited chiefly by foreigners, but since annexation the Japanese have commenced prospecting and every year shows increasing investments in gold mining enterprises. The number of gold mining concessions at the end of 1913 was 189, exclusive of placer mines. One of the leading foreign companies is the Oriental Consolidated Mining Company, an American corporation with concessions in the Pyongan district, working on a capital of 10,000,000 yen and having an annual output valued at 3,300,000 yen, or 10 yen per ton. Another American firm is the Seoul Mining Company, which takes out ore to the value of 1,500,000 annually. The northern portion of the peninsula is richest in mineral deposits. Since 1911 an official mineral survey has been going on and reports are issued to those interested in mining. In addition to the minerals already named the reports indicate possibilities of chromium, molybdenum, mercury, mica, asbestos, and talc, as well as marble and building stone, and also potters' clay of good quality. Some of the more important of the Japanese mining firms have installed metallurgical plants, such as the Mitsu Bishi iron foundry at Kenjiho, the Kuhara gold-recovery plant at Chinnampo, the Government reserve plant supplying in part its Wakamatsu iron works, the works for iron ore from Sainei and Inritsu in the Kokai district, and another for ore from Kaisei owned by the Mitsui firm. The Meiji Mining Company works the coal deposits at Anshu, the Furukawa Company the gold mines of Kijo, the Fujita Company owns the zinc mines at Neihen, and there are several other Japanese companies. The iron ores of Ennyul and Chailong in the Province of Wanhai average from 52 to 55 per cent iron, with manganese 1.70 and 1.30 per cent respectively, together with a little silicon, sulphur, and phosphorus. One of the most important iron mines is being worked by the Okura Company at Angaku on the Talong River. Out of a total of 1,080 mining permits, 612 are in Japanese hands, 369 in Korean, and 51 are joint companies of Korean and Japanese, the Americans holding 31 concessions and the British five. The total output of iron in Korea amounts to no more than 170,000 tons annually, the whole of which is taken by the Government iron works at Wakamatsu in Japan. The copper mines are chiefly at Kapsan in the South Hamkyong Province. The principal company is American, its ores yielding 11

| MINERAL | 1907 | 1909 | 1911 | 1913 |
|--------------------------|-----------|-----------|-----------|-----------|
| | Yen | Yen | Yen | Yen |
| Gold..... | ..... | 3,109,733 | 4,438,838 | 5,639,437 |
| Gold ore..... | 2,508,197 | 166,164 | 12,499 | 74,218 |
| Placer gold..... | 84,589 | 526,969 | 591,618 | 970,205 |
| Silver..... | ..... | 4,096 | 7,118 | 18,237 |
| Gold and silver ore..... | ..... | 42,385 | 38,378 | ..... |
| Gold and copper ore..... | ..... | ..... | 230,210 | 372,063 |
| Copper ore..... | ..... | 2,737 | 684 | 3,300 |
| Iron ore..... | 7,200 | 327,613 | 162,988 | 216,406 |
| Graphite..... | 15,528 | 181,574 | 169,065 | 238,920 |
| Coal..... | 13,178 | 225,864 | 539,497 | 574,526 |
| Various..... | 4,428 | ..... | 63 | 3,100 |
| <i>Total</i> | 2,633,120 | 4,587,135 | 6,190,958 | 8,110,412 |

per cent copper. Graphite, discovered in 1906, is of a clayey nature with from 70 to 80 per cent carbon, a minimum of 35 per cent in scaly graphite and 96 per cent as a maximum. The quality is inferior to that of Ceylon and India, but the output is valued at about 200,000 yen a year. The Pyonyang coal mines are owned by the Government, turning out an anthracite of from 85 to 90 per cent carbon to the amount of about 150,000 tons a year. Mica is now being mined at Tanchon. Salt, which for centuries had been obtained by boiling sea-water, is now made by evaporating the brine in pans, as a monopoly of the Government. The output is about 25,000 tons a year, and there is brisk competition with the cheap salt of China. The table above shows the important development that has taken place on the mining field in Korea from 1907 up to the date of the latest available returns.

TRADE AND COMMERCE

SINCE the annexation of Korea to Japan the foreign trade of the peninsula has witnessed considerable expansion, though the balance of trade will probably remain unfavourable for many years to come. Up to the time of the war with Russia the total volume of Korea's foreign trade did not amount to more than 20,000,000 yen annually. It increased rapidly after the war, and in 1910 reached a total of over 70,000,000 yen, of which 30,000,000 yen represented exports. In 1915 the foreign trade of Korea had grown to 108,691,682 yen, of which 49,492,325 yen represented exports and 59,199,357 imports, an increase of

44 per cent in exports and of about six per cent in imports, over the previous year. The excess of imports, however, need not be regarded so pessimistically as if there were no compensations such as an excess of exports in gold bullion annually amounting to over 10,000,000 yen. The table below indicates the progress of exports and imports in Korea for fifteen years at intervals of five years.

The chief exports from Korea, in order of their value, are rice and beans, which are by far the largest, amounting to 7,524,879 yen and 5,215,609 yen in value, respectively, in 1916; and next come hides, which total over 1,000,000 yen. Raw ginned cotton, fish, and iron ore follow in value, with ginseng, timber, barley, wheat, live stock, paper, salt, fertilizer, dried fish, and copper next in order. Among the principal imports are cotton sheetings, cotton yarn, grass-cloths, kerosene, sugar, flours, coal and coke, timber, machinery, silk piece goods, tobacco, *saké*, paper, straw bags, rope, and matting. The remarkable increase of exports in recent years is due to rapid development of mineral products, especially coal, iron ore, and graphite, as well as in rice, beans, and ginseng under Government encouragement.

As to distribution of trade, of course that with Japan is naturally of first importance, and that with China of considerable importance, Asiatic Russia, Great Britain, and the United States coming next. In 1915 the commodities exported to and imported from Japan were valued at 40,900,828 yen and 41,535,102 yen, respectively. Those to China equalled

| YEAR | EXPORTS | IMPORTS | EXCESS IMPORTS | GOLD COINS AND BULLION | |
|------|------------|------------|----------------|------------------------|---------|
| | Yen | Yen | Yen | EXPORTS | IMPORTS |
| 1905 | 7,916,571 | 32,971,852 | 25,055,281 | 5,206,805 | ..... |
| 1910 | 19,913,843 | 39,781,756 | 19,867,913 | 8,833,629 | 500,000 |
| 1915 | 49,492,325 | 59,199,357 | 9,707,032 | 11,366,587 | 20,111 |

5,599,280 yen, and for imports 8,022,188 yen. Korea's trade with various countries during the last fifteen years may be seen from the accompanying table, recorded at intervals of five years.

Although the import trade with Europe and America seems on the decline or barely holding its own, it has to be remembered that only in recent years has any serious attempt been made to differentiate between the origins of imports. American and European imports entering Korea by way of Japan or China were often credited to the last two countries. Since 1907, however, the Customs Bureau has endeavoured to classify returns of trade as far as possible according to country of origin. The commerce of Korea as yet affords but little evidence of that interplay of international economic forces seen in all countries susceptible to the influence of world-wide industrial and commercial conditions because they have taken a place in the ranks of international trade. Each year, however, renders this reflection more distinct in the trade of Korea, though the increased tariff may have some adverse effect on the policy of the "open door."

| COUNTRY | 1905 | | 1910 | | 1915 | |
|-------------------|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | EXPORTS | IMPORTS | EXPORTS | IMPORTS | EXPORTS | IMPORTS |
| | Yen | Yen | Yen | Yen | Yen | Yen |
| Japan..... | 5,611,925 | 24,041,216 | 15,378,643 | 25,348,083 | 40,900,829 | 41,535,102 |
| China..... | 2,276,693 | 6,463,042 | 3,025,836 | 3,845,274 | 5,599,280 | 8,022,188 |
| Asiatic Russia.. | 21,633 | 110,772 | 1,155,357 | 17,970 | 2,903,641 | 107,106 |
| Great Britain.. | 6,320 | 369,997 | 24,719 | 6,226,524 | 12,185 | 4,279,512 |
| France..... | | | 156 | 96,039 | 1,823 | 69,814 |
| Germany..... | | | 12,972 | 488,281 | | 191,034 |
| Belgium..... | | 8,013 | | 120,976 | | 61,919 |
| United States.. | | 1,978,812 | 304,867 | 3,204,668 | 32,323 | 3,933,840 |
| Other countries | | | 11,293 | 434,939 | 42,243 | 998,842 |
| <i>Total.....</i> | <i>7,916,571</i> | <i>32,971,852</i> | <i>19,913,843</i> | <i>39,782,754</i> | <i>49,492,324</i> | <i>59,199,357</i> |

MITSUI BUSSAN KAISHA, LIMITED,
SEOUL

THE great Mitsui Bussan Kaisha is strongly represented in all departments of commerce and industry in Chosen, its interests having been established there eighteen years ago. At that time the Korean Government controlled the peninsula, but as the affairs of state were in a confused condition, there was practically no control, and Japanese influence

not having yet extended over any large sphere, there was no guarantee either for the property or the lives of the Japanese engaged in business. It may be imagined that commerce and industry were carried on under great disabilities, and business transactions generally were uncertain and at the best of times, most difficult.

Fortunately the Mitsui Bussan Kaisha had a strong and capable man as its Chosen



SEOUL PREMISES OF MITSUI BUSSAN KAISHA

Manager. This was Mr. Daigoro Kure, who kept clear of the tide of unrest and political turmoil, and applying himself to the company's interests with ardour and fortitude, established the Seoul business on a sound basis. Eighteen years have now gone by. Successive managers have been Messrs. Y. Koizumi, S. Odagaki, C. Asano and others, the head of the Chosen business to-day being Mr. Seizo Takano. Throughout the company's business career in Seoul, ample capital and capable staffs, wisely directed by sound and experienced managers, have developed a most prosperous business. At the present time the Mitsui Bussan Kaisha organisation in Chosen includes despatch offices at Fusan, Jinsen, Gunsan, Shingishu, and Chinnampo. Business is being conducted on a large scale, smoothly and energetically.

The Mitsui Bussan Kaisha does a general import and export trade and agency business. Among the principal lines dealt with are: Mineral ores, fertilizers, cereals, machinery,

timber, cotton yarn and piece goods, coal, cement, and explosives. There is a shipping department, and a department for insurance. The company holds the sole agency for the Onoda Cement Company, and is also agent for the Tokyo Marine Insurance Co., Ltd., Nobel's Explosives Co. (Glasgow, Scotland), the Dai Nippon Artificial Fertilizer Co., Ltd., and the Oriental Spinning Co., Ltd. The direction and transaction of the Company's business operations in Chosen are carried on by Messrs. N. Kasahara, Y. Amano, T. Igarashi, K. Nomura, C. Nogami, T. Tejima, S. Homma, and M. Tanaka, heads of departments; K. Doki (in charge of the Jinsen office), T. Kobayashi (chief of the Fusan office), and S. Wakimura (chief of the Gunsan office).

TOWNSEND & CO.

THE business conducted by this firm is the oldest established foreign interest in Chosen (Korea). It was originally founded under the firm name of Morse, Townsend & Co.,

importers and general agents, and after having been in existence for a number of years prior to 1894, it became known as Townsend & Co., the present principal, Mr. W. D. Townsend, having purchased the interests of Mr. Morse. Over a long period of time and through the many political changes which have taken place in Korea, the business has steadily developed, and is now highly successful, the firm's operations being associated with the most active commercial expansion of the country. Townsend & Co. were for many years agents for Korea for the Standard Oil Company of New York. This agency was, however, taken over in 1909 when the Standard Oil Company established their own offices in Korea.

At present, Townsend & Co. are agents for the following: Hongkong & Shanghai Banking Corporation, Nobel's Explosives Co., Ltd., Glasgow, British-American Tobacco Co., Ltd., Commercial Union Assurance Co., Ltd., Hongkong Fire Insurance Co., Ltd., China



TOWNSEND & COMPANY: THE PICTURESQUE OLD KOREAN OFFICE BUILDING AND THE FIRM'S STAFF



PORTION OF GARAGE AND OFFICE OF J. H. MORRIS & CO., SEOUL

Traders Insurance Co., Ltd., Oriental Consolidated Mining Co., China Sugar Refining Co., Ltd., The Seoul Mining Company, The Chiksan Mining Company, the "Glen" Line of Steamers, Pacific Mail Steamship Company, and the "Prince" Line of Steamers.

Apart from other interests the firm owns a rice-cleaning mill, which is leased to Japanese. Mr. W. D. Townsend is a director of the Chiksan Mining Company, which is conducting mining operations for both quartz and placer gold. The firm's Manager is Mr. J. D. Atkinson.

J. H. MORRIS & CO., SEOUL

THERE are a number of enterprises, the directors of which look back with pride to a long business experience, and rightly regard themselves as the pioneers in the commercial development of Japan and its oversea possessions. Two decades have made great

changes in Japan, and if business men there may speak of the problems that presented themselves, what must have been the difficulties encountered in Chosen, when only to-day is any sign of progress dimly visible?

Work in connection with the Seoul tramways took Mr. J. H. Morris to the country in 1898, and after completing that work he remained to install the waterworks system. Later on Mr. Morris was prominently associated with the mining industry, and for many years enjoyed well merited success. In 1914 all Mr. Morris's many years of hard work went for nothing, as he was defrauded by a partner and was practically ruined. Undismayed by such misfortune he established the business which he now controls, and that it should have achieved success so pronounced and gratifying, speaks volumes for the spirit and enterprise of the proprietor. The principal lines of business

conducted by J. H. Morris & Co. are dealing in electrical supplies, lighting installations, large and small, pumps and mining plant installations, and automobiles and motor cycles as a special department. Mr. Morris is the sole representative in Korea for the famous Overland Car, and the equally famous Indian Motor Cycle. A completely equipped repair and overhaul shop is maintained under the supervision of a thoroughly experienced American mechanic.

Some surprise may be expressed that there should be such a demand for cars in so new and undeveloped a country as Chosen, but what is at once the secret of the success enjoyed by Mr. Morris, and the great interest he personally finds in the business, is the fact that he is creating the demand. The railway service of the country, as far as it goes, is excellent, but where the railway does not go, transportation is furnished very

largely by means of motor bus service, for the operation of which various small companies are springing up in all parts of the country. This scheme originated with Mr. Morris, as did also the idea of attaching a fire hose reel to the chassis of a motor car, for fire-fighting purposes in the city. When it was found that the improvised fire motor hose reel could get to the scene of a conflagration and be playing on the fire some time before the old horse reel put in an appearance, Mr. Morris's contrivance soon found a ready sale with the municipality. Morris & Co. also represent the Canadian Pacific Railway and Canadian Pacific Ocean Services, as well as the Oliver Typewriter Co.

The offices and warehouse of the firm are well constructed premises covering an area of about 660 square feet, the land and building being the property of Mr. Morris. A staff of five clerks is employed. The future development of the business will not necessarily maintain its present form, though doubtless cars, pumps, electrical apparatus, and machinery generally will continue to be its specialties. Chosen is destined to become a fertile field for the foreign manufacturer, progress and enterprise being now visible in many directions, and the happy

reputation which Mr. Morris has built up for himself, particularly in the direction of overcoming difficulties, should make him a desirable representative of foreign interests.

KYOYEKI SHA TRADING CO., LIMITED,
SEOUL

THE Kyoyeki Sha Trading Co., Ltd., has assumed a position of first rate importance in the general trade of Chosen and Manchuria, and is rapidly expanding into one of the biggest concerns in the peninsula. The business was started in 1908 as a partnership between Mr. S. Boku, the present President, and Mr. K. Nishihara, who acted as advisor on trade affairs. At that time the principal line of business was the trade in cotton and cotton piece goods, the firm acting as sales agents for the Fuji Gas Spinning Co., Ltd.

In 1915 the private interests of the partnership were transferred to a joint-stock company which was formed at the instigation of Mr. Boku, with an initial capital of Yen 500,000, of which Yen 250,000 has been paid up. Messrs. Ito & Co., the well known merchant house of Osaka, are the biggest shareholders, and are considered as the company's branch in Japan proper. The

principal lines now dealt with are agricultural produce such as beans and other cereals, which are exported to Japan and elsewhere, and cotton piece goods, and hides and skins. The company has adopted a vigorous policy which will lead to rapid expansion in the near future, particularly in Manchuria, where a special trade is to be opened up with the products of the Fuji Gas Spinning Co., Ltd., and of the Kanegafuchi Spinning Co., Ltd., with which the Kyoyeki Sha is closely connected. A small steamer owned by the company is now plying regularly between Fusan and Osaka, carrying goods for account of the concern.

The head offices of the Kyoyeki Sha Trading Co., Ltd., are situated right in the centre of Seoul and occupy an area of 280 *tsubo*. The building is a modern red brick structure, with spacious godowns attached. Special arrangements have been completed for handling raw hides, which are to be exported principally to Italy. These are branches of the business at Harbin, Changchun, Mukden, Chemulph, Gensan, Joshin, Fusan, and Antung. Employees number about 150. Mr. S. Boku is the Chairman of the board of Directors. Other principal officers are: Messrs. S. Tanaka (Managing Director),



PREMISES OF KYOYEKI SHA TRADING CO., LTD., SEOUL



CONNECTING STEAMER OF CHOSEN RAILWAYS AT FUSAN PIER

Messrs. C. Ito, J. Sai, and K. Tsutsui (Directors), Messrs. K. Sai, G. Kin, and S. Cho (Auditors), Mr. T. Takenaka (Manager), and Mr. K. Nishihara (Adviser).

For the year ended January 26, 1917, the Kyoyeki Sha Trading Co., Ltd. realised a profit of 10 per cent, but it is confidently expected that the next dividend will be 18 per cent. In the 1917 balance sheet the assets were shown as Yen 2,227,592, the profit available for distribution then being Yen 59,741.80. Of this sum Yen 25,000 was placed to reserve funds, a bonus of Yen 6,000 was awarded, Yen 25,000 was distributed in dividends, and the balance was carried forward. The head office of the company is at No. 13, Nandaimon-dori, Nichome, Seoul.

SUZUKI & CO., SEOUL

THE Seoul branch of this famous Japanese firm was established in 1915 by the present manager, Mr. Koyama, under whose jurisdiction come also the other branches in Chosen, *viz.*, Fusan, Chinnampo, and Gensan, and also the firm's pulp mill at Kuppo and the cotton mill at Taikyu.

The offices of Messrs. Suzuki & Co. are located in the centre of the business district of Seoul, and attached to them are commodious godowns, etc. A vigorous policy of expansion is being pursued and in this connection the visitor to Fusan will notice that there the firm has under construction fine

new buildings in which the handling of cargoes at the port will be greatly facilitated. Messrs. Suzuki & Co. conducted a general merchandise and agency business. Their principal lines are cotton, matches, caustic soda, and beer, the firm having the sole agency for the Imperial Beer Co. of Shimonoseki. They are also agents for the Dai Nippon Salt Co., the Kanto Sanso Chemical Company (which is dealt with fully, elsewhere in this volume), the Oriental Marine Insurance Company, and the Hohden Oil Company. Some idea of the extent of the operations of the cotton

mill which the firm owns at Taikyu may be gathered from the fact that supplies of raw cotton to the annual value of Yen 1,500,000 are required to maintain it in operation.

In the mining industry of Chosen, Messrs. Suzuki & Co. are also prominent operators. They own an ore selecting and treatment plant at Rorvoshin, near Seoul. A specially constructed compound which covers 20,000 *tsubo* and cost over Yen 200,000 is utilised for the selection of the various grades of ore. At these works the firm handles over 1,500

| YEAR | MILEAGE | PASSENGERS CARRIED | FARES | GOODS CARRIED | REVENUE |
|------|----------|-----------------------|-----------|------------------|-----------|
| | | | Yen | Tons | Yen |
| 1912 | 767.48 | 2,429,687 | 2,508,111 | 1,063,111 | 1,937,429 |
| 1913 | 836.40 | 4,399,022 | 3,257,726 | 1,105,362 | 2,083,462 |
| 1914 | 966.55 | 4,995,441 | 3,494,097 | 1,388,915 | 2,356,172 |
| 1915 | 993.42 | 4,768,251 | 3,308,130 | 1,386,614 | 2,553,623 |
| 1916 | 1,006.40 | 5,040,471 | 3,562,620 | 1,656,640 | 3,122,680 |

MONEY ORDERS AND SAVINGS BANKS

| ITEM | ISSUED | | PAID | |
|-----------------------|-----------|------------|---------|------------|
| | NUMBER | AMOUNT | NUMBER | AMOUNT |
| | | Yen | | Yen |
| Domestic orders..... | 1,434,795 | 31,636,622 | 926,187 | 26,068,669 |
| Foreign orders..... | 2,090 | 62,705 | 2,546 | 137,060 |
| Savings deposits..... | 870,751 | 8,045,265 | ..... | ..... |

| ACCOUNT | 1914 | 1915 | 1916 | 1917 |
|--|------------|------------|------------|------------|
| | Yen | Yen | Yen | Yen |
| Ordinary Revenue: | | | | |
| Taxes..... | 13,903,623 | 16,685,250 | 17,121,116 | 16,684,928 |
| Land Tax..... | 6,979,730 | 10,100,940 | 9,838,760 | 9,809,377 |
| Rural House Tax..... | 761,141 | 781,118 | 737,789 | 777,282 |
| Urban House Tax..... | 156,026 | 200,350 | 198,227 | 222,105 |
| Liquor Tax..... | 444,925 | 477,020 | 408,719 | 693,286 |
| Tobacco Tax..... | 379,957 | 740,419 | 900,448 | 813,726 |
| Mining Tax..... | 249,982 | 365,102 | 270,437 | 290,224 |
| Customs Duties..... | 4,806,673 | 3,893,064 | 4,641,837 | 3,721,762 |
| Tonnage Dues..... | 86,773 | 87,412 | 91,708 | 78,190 |
| Income Tax..... | | | | 161,932 |
| Miscellaneous Taxes..... | 38,416 | 30,824 | 33,191 | 26,954 |
| Stamp Receipts..... | 1,718,680 | 1,857,915 | 1,715,923 | 2,402,787 |
| State Lands..... | 1,171,304 | 1,549,266 | 1,521,423 | 1,520,857 |
| Government Enterprises and Property..... | 13,940,934 | 14,749,791 | 18,616,671 | 20,098,385 |
| Waterworks..... | 311,495 | 352,069 | 460,566 | 436,655 |
| Government Printing Bureau..... | 310,206 | 345,984 | 413,465 | 387,200 |
| Pyongyang Mining Station..... | 865,322 | 1,290,929 | 1,432,410 | 1,460,960 |
| Postal, Telegraph, and Telephone Services..... | 3,135,867 | 3,149,588 | 3,738,021 | 3,738,060 |
| Railway Receipts..... | 7,851,626 | 7,734,260 | 10,177,059 | 10,149,039 |
| Other Receipts..... | 613,002 | 850,116 | 801,586 | 854,669 |
| Miscellaneous Receipts..... | 1,457,418 | 1,867,961 | 2,395,150 | 3,926,471 |
| Extraordinary: | | | | |
| Sales of State Property..... | 297,165 | 75,548 | | |
| Loans Received..... | 11,103,112 | 7,640,871 | 8,634,327 | |
| Loans for Public Works..... | | | | 10,585,000 |
| National Treasury Grant..... | 10,000,000 | 9,000,000 | 8,000,000 | 7,000,000 |
| Surplus of Preceding Year..... | 10,345,660 | 9,639,004 | 2,149,451 | 702,372 |
| Ordinary Expenditure: | | | | |
| Korean Royal Family..... | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 |
| Government-General..... | 2,824,216 | 2,982,907 | 3,245,279 | 3,300,673 |
| Courts and Prisons..... | 2,486,790 | 2,455,449 | 2,588,022 | 2,724,269 |
| Police Expenses..... | 3,266,483 | 3,370,374 | 3,317,076 | 3,314,472 |
| Local Administration..... | 4,033,258 | 4,193,595 | 4,166,475 | 4,273,901 |
| Custom Houses..... | 524,096 | 553,720 | 592,673 | 595,573 |
| Pyongyang Mining Station..... | 755,644 | 779,588 | 775,692 | 785,751 |
| Communications..... | 3,347,540 | 3,570,300 | 3,685,168 | 3,775,843 |
| Railway Expenses..... | 6,282,341 | 6,500,119 | 7,718,726 | 7,690,455 |
| Interest on Loans..... | 2,568,730 | 4,751,910 | 3,894,183 | 5,011,666 |
| Reserve Fund..... | | | 1,000,000 | 1,000,000 |
| Other Expenses..... | 4,101,122 | 1,709,878 | 4,310,871 | 3,100,612 |
| Extraordinary: | | | | |
| Encouragement of Industry..... | 392,795 | 245,884 | 237,222 | 232,590 |
| Assistant Gendarmes..... | 1,103,966 | 1,102,827 | 1,104,429 | 1,104,429 |
| Cadastral Surveys..... | 2,466,074 | 3,074,939 | 3,596,993 | 3,785,164 |
| Subsidies..... | 2,729,034 | 3,283,528 | 3,216,156 | 3,050,608 |
| Grants..... | 106,975 | 780,000 | 64,000 | 64,000 |
| Repairs and Construction..... | 1,267,256 | 1,324,651 | 1,398,636 | 1,084,087 |
| Public Works..... | 4,670,071 | 4,227,592 | 3,237,034 | 3,202,512 |
| Railway Construction, etc..... | 8,469,387 | 7,321,953 | 7,580,000 | 8,390,000 |
| Other Expenses..... | 558,706 | 1,460,711 | 1,644,858 | 1,862,453 |

tons of ore per month. The degree of confidence which Messrs. Suzuki & Co. enjoy is evidenced by the fact that they have been appointed wholesale agents for cereals, grain, and other products, acting on behalf of the Government General of Chosen. Their godown at Chinnampo covers 1,500 *tsubo*.

Mr. Koyama, the Manager for the firm at Seoul, has been in the service of Messrs. Suzuki & Co. for many years, and the Chosen business is showing gratifying progress under his management.

COMMUNICATIONS

THE first railway in Korea was the line between Inehyong and Seoul opened in 1900; the line from Seoul to Fusan was completed in 1904, and to Wiju in 1906. These lines, started under private companies, were purchased by the Government in 1906 at a cost of 20,084,537 yen. The extension from Seoul to the Yalu River, a distance of 585 miles, was begun, and, together with the branches to Wasan and Kinjipho, was completed during the war with Russia. In 1911 the magnificent bridge over the Yalu River, 3,098 feet long, was finished at a cost of 1,500,000 yen; and now the whole length of the peninsula is traversed by a great trunk line connecting Fusan in the south with Antung on the right bank of the Yalu in the north, the total length, including branches, reaching 1,006.5 miles. Branch lines run from Yongdupho on the Seoul-Fusan route to the port of Inehyong, from Samrangjin to Masampo, from Hoangjin on the Seoul-Wiju line to Kenjipho, from Pyongyang to Chinnampo, from Thaijon to Mokpho, known as the Honan line, which is 175 miles long, with a sub-branch from Liri to Kansan, completed in 1914. The Seoul-Wonsan line, 138 miles long, runs from Yongsan to Wonsan, and was also completed in 1914, while the Hamgyong line, a branch of the Wonsan-Yongheng section, has recently been opened for traffic. The main line traversing Korea is broad gauge and provided with the latest equipment in rolling stock, having finer trains than are to be seen in Japan proper. This line now forms the shortest and most comfortable route between Europe and East Asia. The Railway Bureau has good hotels at Fusan and Wiju, whilst at Seoul the Chosen Hotel is one of the finest in the Far East. The picturesque tourist resort known as Diamond Mountain is well provided with hotels. About 130,000,000 yen has been expended by Japan in the improvement and extension of railways in Korea. The first table on the preceding page shows the expansion of railways and traffic in Korea during five recent years.



BANK OF CHOSEN: THE SEOUL PREMISES — THE BANKING CHAMBER — A RECEPTION ROOM



MR. S. MINOBE, PRESIDENT AND DIRECTOR
OF THE BANK OF CHosen

Much has also been done to improve communications by the extension and construction of highways in the peninsula, over 12,000 miles being so effected in the last five years, but the progress of tramways is yet remarkably slow.

In regard to posts, telegraphs, and telephones the same principles of progress have been pursued as in the case of railways, though no very definite statistics are available. The following are the official figures for the year 1916: Number of post offices,

516; miles of route, 19,730; letters and papers, 177,816,121; parcels handled, 2,677,901; telegraph offices, 590; length of lines, 4,914 miles; length of wires, 13,760 miles; number of messages annually, 4,691,693; number of telephones, 494; length of lines, 2,875 miles; length of wires, 21,350; number of messages, 39,344,905.

Considerable work has been done in the way of improving rivers and harbours in Korea, principally at Fusan, Jinsen, Heijo, and Chinnampo. The tonnage of vessels entering Korean ports has increased from 2,000,624 in 1905, with 9,949 ships, to 4,076,983 in 1913, with 9,980 ships, of which 4,187 were steamers representing an aggregate tonnage of 3,942,120.

FINANCE AND BANKING

PREVIOUS to Japan's assumption of her protectorate over Korea in 1907 the finances of the country were in rather a deplorable condition, extravagance and inefficiency being as prominent features of the fiscal as they were of the Government administration generally. A financial adviser from Japan had been engaged by the Korean authorities in 1904, opening a way for economic adjustment, but his advice was not wholly adopted. After 1910 a radical transformation of the country's fiscal system was inaugurated and some attempt was made to balance revenue and expenditure. To enable the Korean Government to meet the deficit in its budget the Government of Japan, previous to annexation in 1910, advanced the sum of 104,000,000 yen from the Imperial Treasury, of which 14,200,000 yen was in the shape of loans free of interest.

The most of this loan was expended on the reformation of the judicial system of the kingdom. After annexation the ordinary expenditure of the country was met by ordinary revenue, extraordinary outlay, such as expenses for military forces, railway extension and so on, being covered by loans or grants from the Imperial Treasury. These advances amounted to 12,350,000 yen in 1911 and 1912, to 10,000,000 yen in 1913, 9,000,000 yen in 1914, and 8,000,000 yen in 1915.

Japan's policy is to have Korea independent financially by the year 1919. The possibility of realising this ambition is indicated by the fact that every year since annexation of the peninsula has witnessed an increase of revenue, while the initial expenses of the new administration may be expected to decrease with time. In 1907 the total revenue was only about 17,000,000 yen. Two years later it arose to 29,000,000 yen, including some advances from the Imperial Treasury. In 1912 the revenue



MR. Y. KIMURA, DIRECTOR OF THE BANK
OF CHosen

increased to 52,000,000 yen, and it is now over 59,000,000 yen. Revenue and expenditure from 1914 will be seen from the tables on a preceding page.

It is apparent from the above tables that a considerable proportion of the revenue comes from taxes, duties, and Government undertakings, while a large amount of the expenses is on the development and improvement of the resources of the country, such as railways, riparian work, and agriculture.



MR. T. MISHIMA, DIRECTOR OF THE BANK
OF CHosen



MR. S. OHTA, DIRECTOR OF THE BANK
OF CHosen

The financial condition of the country is undoubtedly improving under the new *régime*. The national debt of Korea, incurred mostly for purposes of financial adjustment, and for internal improvements, now totals 65,657,000 yen.

BANKING AND CURRENCY

Up to the year 1904 Korea had no banks of its own, but the First Bank of Tokyo, which opened an office in Seoul in 1878, received from the Government of Korea and the Home Government permission to issue convertible notes, and in 1905 it was authorised to perform the functions of a central bank. As a result of the country's financial expansion, however, it soon became necessary to provide more extensive facilities, and steps were taken in August, 1909, to establish the Bank of Korea, to be the monetary organ of the peninsula. In the November following, the new bank took over the duties formerly devolving on the First Bank. The Bank of Korea opened with a capital of 10,000,000 yen, and a loan of 1,230,000 yen from the Government, and established branch offices at fifteen places of importance. After the annexation of the peninsula the name of this bank was changed to the Bank of Chosen. While performing all the functions of a central bank, the Bank of Chosen carries on a regular banking business, and has branches in Tokyo, Mukden, Dairen, Chengchun and other parts of China. In 1906 regulations for the inauguration of agricultural and industrial banks were brought into operation, and such banks were established in various important places, their business being to make long-term loans for the promotion of agriculture and industry, at the same time carrying on ordinary banking business. Owing to the increased demand for economic facilities the agricultural and industrial banks were later amalgamated, greatly aiding the circulation of capital. In 1915 the number of head offices of such banks was six, with a total capital of 4,059,980 yen, including loans from the Government amounting to some 330,000 yen. After the financial adjustment of 1904 the only ordinary banks in Korea were the Ten-ichi and the Haisong banks, which, with inadequate capital and defective administration, were on the point of bankruptcy. But the Government recognising the need of banks, appointed Japanese managers and advanced capital to the banks, improving their prospects greatly. In 1906 several Korean financiers united in organising the Kan-ichi Bank in Seoul, independently of Government assistance. Japanese ordinary banks in Korea are the First Bank, the Eighteenth Bank, the One Hundred and Third Bank,

the Suwo Bank, the Mitsuyo, and the Shichisei Bank. In addition to the banks indicated there are numerous local monetary circulation associations for the purpose of facilitating the circulation of money among the agricultural classes and promoting their economic development. Members of these associations must be persons who have resided not less than one year within the district and are engaged in agricultural pursuits and earning an independent livelihood thereby. Each association has a fund of 10,000 yen granted by the Government, and this, together with deposits, loans, and contributions of its members, is employed in accommodating farmers who wish to purchase seed, manure, and agricultural implements. The associations also act as agents to receive deposits for banks. The number of these associations at the end of 1915 was 240, with an aggregate membership of 69,279, contributing 849,490 yen, possessing reserves of 531,859 yen, deposits of 277,124 yen, advancing 2,095,141 yen in loans, and as agents of banks receiving 269,023 yen.

Through the long years of Korean history the coinage system of the country underwent many changes, and after annexation the old system was suspended with a view to unification of Korean coinage with that of Japan. The current subsidiary coins of Korea were withdrawn from circulation as they came into the hands of the Government and sent to the mint to be melted down, until they were gradually replaced by the subsidiary coins of the Empire. To promote the process of replacing native by Japanese coins, some 500,000 yen in small coins was sent from the National Treasury to the Bank of Chosen, and thence distributed among the agricultural and industrial banks and the monetary associations. At the end of 1915 current coins circulating in Korea amounted to 4,757,121 yen in Japanese currency, and 1,809,909 yen in old Korean currency, while the banknote circulation of the Bank of Chosen reached 34,387,520 yen, the capital now standing at Yen 20,000,000.

THE BANK OF CHOSEN, SEOUL

It would be almost impossible, in any effective survey of the commercial, industrial, or general economic development of the territory of Chosen, to exaggerate the vitally important part which has been played by the Bank of Chosen. This institution may be fairly described as the State or National Bank of this portion of the Japanese Empire. It is not only a Government-controlled bank, but its sphere of influence and its general policy are at once wider, and depart more sharply from the common performance of the functions of banking, than those of any



MR. CHO CHIN TAI, PRESIDENT OF CHOSEN COMMERCIAL BANK, LTD.

other bank operating in the peninsula or contiguous territory. The Bank of Chosen is to that country what the Bank of Japan is to Japan proper.

As it stands to-day the institution under review is the matured development of a clear-sighted policy which was laid down many years ago, and which has been pursued undeviatingly. Prior to the formal establishment of the bank, functions of a central bank in the old independent Korea were performed by the Seoul branch of the Dai Ichi Ginko, a famous Japanese bank. The Dai Ichi Ginko under Government supervision issued bank notes, undertook currency reform, handled Treasury money, and rendered various other services required by the Government. In 1907 a treaty was concluded between Korea and Japan whereby Japanese officials were taken into the service of the Korean Government. Reforms were introduced in the general administration of affairs, and a great expansion of the financial and economic power of the country was witnessed. It was then that the need for a regularly organised central bank was most acutely felt. The idea found expression in an arrangement entered into first between the Dai Ichi Ginko and the Korean Government, and later in negotiations between the Korean and Japanese Governments. The outcome of these negotiations was the passing of the Bank of Korea Act, while all the business pertaining to the establishment of the proposed institution was left to the Government of Japan. In August, 1909, a committee to

undertake the organisation of the Bank of Korea was appointed by the Japanese Government, and included the Governor of the Bank of Japan and the Vice-Minister of Finance for Korea. In the same month shares were issued for public subscription. The result was something extraordinary, for though the application list was to have been open for seven days, it had to be closed at one o'clock p. m. on the first day it was opened, the public lodging applications for 20,352,374 shares, as against the 60,600 which were to be allotted. Shares were finally distributed to the applicants *pro rata* to their applications, the Japanese and Korean Imperial Households each receiving 1,000 shares.

With the coming into existence of the Bank of Korea all the branches of the Dai Ichi Ginko in Korea and Manchuria, as well as its business and personnel, with the exception of those in Seoul and Fusan, were transferred to the new institution, which consequently started operations with thirteen branch offices, a going business, and a well trained staff. A year later Korea was annexed to Japan, and the bank was renamed the Bank of Chosen, new legislation being framed to accomplish this change and to legalise all transactions that had been entered upon under the old *régime*. In the year of annexation, 1910, the total trade of Chosen was valued at Yen 59,696,599. In 1916 the trade had risen to a value of Yen 131,258,739. In 1910 Chosen had only 145 companies with a paid-up capital of Yen 10,230,903, whereas

in 1916 there were 222 companies with a paid-up capital of Yen 44,014,410. In the same period bank deposits expanded from Yen 18,355,670 to Yen 43,716,741, and advances from Yen 30,691,677 to Yen 70,456,738. These figures, though not of impressive magnitude, nevertheless indicate a vigorous development in the economic condition of Chosen, and they suggest what an important part has been filled by an institution of a semi-governmental nature like the Bank of Chosen. When the bank came into existence the work of coinage reform was going on, and the Bank of Chosen had to complete it, besides undertaking the financing of the needs of the Government and of the various municipalities in the direction of carrying out public works. New enterprises were springing up, and the most worthy of them were accommodated with funds. The financial problem in the first few years was not by any means a simple one, and frequently owing to economic depressions and other causes the directorate had to face most anxious situations. However, in course of time, the industrial development of the country established a balance of trade more favourable to banking generally, and the anxious period was over.

At this stage the Bank of Chosen turned its attention to Manchuria, where it has carried out the same policy which had proved successful in Chosen. Branches were established in the important centres, and a general banking business was entered upon. Monetary conditions in Manchuria were not

satisfactory, but the Bank of Chosen has rectified a good deal of the trouble by encouraging the circulation of gold notes, and fractional notes to provide the country with subsidiary monies on a gold basis. It is interesting to note that more recently in Japan proper this practice has been followed to relieve the shortage of small money, due to the high price of silver. The Bank of Chosen has also established branches in Japan proper, and as a member of the syndicate of large banks it has taken part in all the great loans of national importance that have been floated of recent years. Moreover, the bank has taken its place in international finance, now having a foreign department at the head office. All this has resulted in an enlargement of business, and a consequent demand for more capital. This situation was met at the general meeting of shareholders in February, 1917, when the directors' proposal to increase the capital from Yen 10,000,000 to Yen 20,000,000 was passed unanimously. The prestige which the Bank of Chosen has won was again demonstrated when the new shares, offered at a premium, were oversubscribed for three times.

It is hardly necessary to go into details of the bank's operations. What has been written will convey a general idea of the organisation, stability, and influence of the institution. The directorate is a very carefully chosen body of men. The Governor is appointed by the Government of Japan, and the directors are appointed by the Governor-General of Chosen from among twice their number nominated at a general meeting of the shareholders. These officials at present are: Governor, Mr. S. Minobe; Directors, Messrs. T. Mishima, Y. Kimura, and S. Ohta; Auditors, Messrs. C. Ito and K. Hattori. As the State Bank of Chosen it will be of interest to say that in 1916 the Bank of Chosen handled Government funds to the total of Yen 710,934,502. Financially the institution has been a pronounced success. A dividend of seven per cent has been paid for the past three years, and the reserves total well over Yen 1,500,000, a result which must be considered satisfactory in view of the short while the bank has been in existence.

Branches of the Bank of Chosen exist at the following centres: Chosen—Seoul (head office), Chemulpo, Pyeng-Yang, Wonson, Taiku, Chinnampo, Mokpo, Kunsin, Masan, Fusan, Ranam, Shinwiju, and Hoilyong. Manchuria—Antung, Mukden, Tieling, Liaoyang, Port Arthur, Dairen, Changchun, Szupingchieh, Kaiyuan, Harbin, Yingkow (Newchwang), Fuchiatien, Yongchongchon, and Kirin. Japan—Tokyo, Osaka, and Kobe. (See also pages 109, 814, and 837.)



FINE SEOUL PREMISES OF CHOSEN COMMERCIAL BANK, LTD.



A VIEW OF KEIJO (SEOUL), NEAR THE CHOSEN HOTEL

CHOSEN COMMERCIAL BANK, LIMITED

THIS institution claims the distinction of being the oldest bank established in Korea. It was founded in 1899, and was originally known as the Taikan Ten-ichi Bank, Limited. The bank was given the privilege of issuing convertible currency, and for some years enjoyed considerable prosperity. Later on, however, when the general conditions of the country led to the complete dislocation of business and induced a panic, the Taikan Ten-ichi Bank was compelled to close its doors during a period of reconstruction. On reopening the bank applied for and obtained a Government loan, and a Japanese banker was appointed on the recommendation of the Government, to manage affairs. Thereafter a progressive policy was followed, aimed at establishing banking business on a sound basis.

After the annexation of Korea by Japan, the name of the institution was altered to the Chosen Commercial Bank, Limited, and besides ordinary banking business the bank constructed godowns and is now doing a large and flourishing business in this class of investment. In April, 1917, the capital was increased to Yen 1,000,000, but this amount still being inadequate for the bank's transactions, it is now proposed to raise the capital to Yen 5,000,000. The Chosen Commercial Bank, Limited, is fulfilling many important functions in connection with the commerce and industry of the country. It is under Government protection and supervision and is a stable institution. Mr. Cho Chin Tai, the President of the bank,

is at the head of Korean business men, and is prominently associated as a director, or in other capacities, with several other banks and companies. It is due to Mr. Cho that a great deal of the prosperity witnessed in Chosen to-day has been realised.

EDUCATION

PRIOR to Japan's protectorate and final annexation of Korea, there was very little in the way of systematic education in the country. Village school masters taught

Korean boys domestic etiquette, writing and reading of Chinese ideographs, while the more intelligent classes sent their sons to complete their education in Chinese classics at the Confucian school in Seoul. The only education worthy of the name was that received in the mission schools kept by foreigners who brought with them some principles of educational reform, but until the inauguration of common schools and normal training colleges by the Japanese, education was never looked upon as a matter



BRASS BOWLS FOR SALE IN THE MARKET PLACE



SCENES IN KEIJO (SEOUL): SHORO STREET — NANDAIMON STREET — KOKAMON STREET



CHOSEN HOTEL, SEOUL

of public interest. The reform of education among a subject population, as suspiciously inclined as the Koreans, has been no easy task; and the progress of the new system has not been made easier, if not rendered futile, by the Government's insistence on all instruction being given in the Japanese language, which, of course, none of the children understand. The amount of instruction given depends, therefore, on the ability of the teacher to make himself understand through translation, as well as on the progress of the pupils in the imposed language. This imposition of a foreign language on the native population to the extent of making the education of the rising generation depend on acquiring it, represents a more vigorous policy than was adopted by the ancient Romans on their subject peoples. Not only so, but the regulations with regard to education seem to be aimed at depriving mission schools of the right to educate Korean children, for they are forbidden to use their school buildings for the teaching of religion, the very purpose for which the buildings were erected. In fact, no school is permitted at all unless it conforms strictly to Government regulations. This placing of all private schools under the administrative control of the Government-General is a great handicap to missionary work as well as to education, crippling, as it does, the five hundred mission schools of the peninsula, and is evidently based on the official conviction that foreign schools do not hasten Korean subservience to Japanese rule.

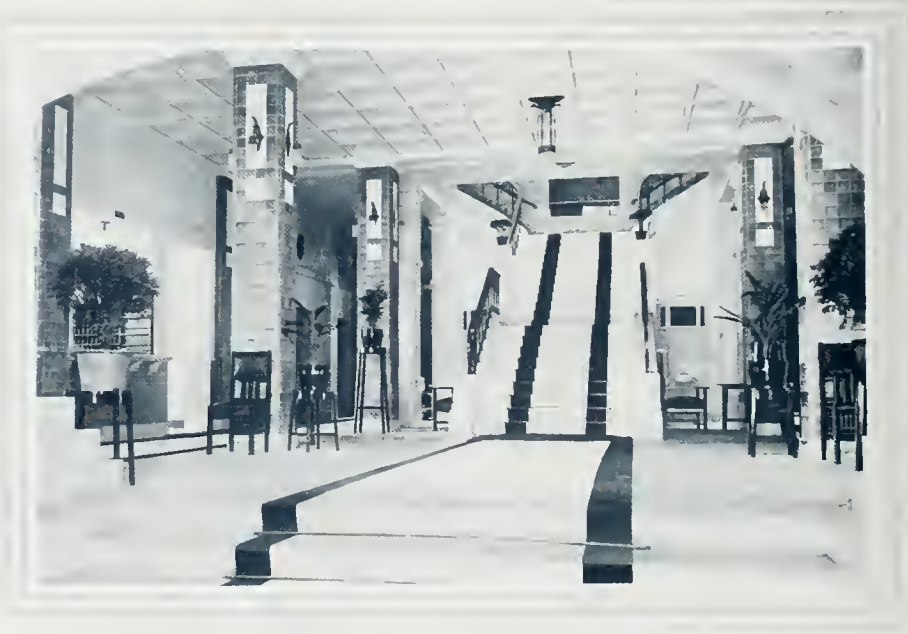
Under the new regulations for the reform of education in Korea, primary schools were completely reorganised, a modern Japanese normal school replaced the old Hansong normal school founded in 1895, the High School of Hansong became a Middle School, the Japanese Language School of Pyongyang

became a High School, and a foreign language school was created in 1906. Schools for the blind, a law school, three girls' higher schools, several industrial and commercial schools, were in operation by the year 1913, when the Seoul Academy was also reorganised. Besides the above mentioned Government institutions, some 1,200 private schools still flourish, including village schools. Medical education, too, has made some progress, the training school having 140 students and 39 Japanese instructors. Public elementary schools, as well as higher schools for Japanese children, have also been organised to the number of some 315, with 1,223 teachers and about 35,000 pupils, while Government schools number 487 with 2,345 teachers and 67,367 pupils.

Expenditure on education in Korea is

over Yen 1,500,000 annually. The Government provides the school books, which are compiled with a view to making the Koreans loyal citizens of Japan, and therefore not very popular. Special attention is devoted to medical education, as it has been obvious to the Government that through hospitals the foreign missionaries exercise a most potent influence over the Koreans. Consequently the authorities have started laboratories, isolation hospitals, and means for the prevention of disease and the promotion of hygiene. Hospitals now number more than 18, with some 480 physicians, and more than 400,000 patients are treated annually. Inspection of meat, street sanitation, and improved water systems for cities have been inaugurated, and everything possible done to remove the causes of ill health.

In Korea, as in Japan, all faiths are free and equal, but the Government's determination to separate religion and education is much more stern than at home. The cult of Confucianism finds favour mostly among the upper classes, as in Japan; while Buddhism is more popular among the common people. Between the two comes Christianity, which is increasingly popular among all classes. The French Roman Catholic Mission was the first to invade Korea, arriving as early as 1830, Protestant missionaries not appearing until 1884. The missions of the American Presbyterian and Methodist churches are the most progressive, followed by the Methodists and Presbyterians of Canada and Australia and the Church of England. Foreign missionaries of the Methodist and Presbyterian churches number 306, with 1,292 native pastors and workers, 2,477 churches, and 203,973 converts.



LOBBY OF THE CHOSEN HOTEL SEOUL



KEIJO (SEOUL) POST OFFICE

Statistics for other missions are not given. The educational work done by the missionaries in Korea, already alluded to, is of wide influence and importance. With the policy of the present Government-General, however, all education in time must inevitably pass under Government auspices.

KEIJO (SEOUL)

SINCE the annexation of Korea to Japan, the ancient capital of Seoul has been known as Keijo, or Keiyjo, and while it has lost little of its old interest as

a quaint old Oriental city, it has been greatly modernised under Japanese influence, and as a city, it is much improved.

Keijo lies in latitude $37^{\circ} 35'$ north and longitude 127° East. It is situated almost in the centre of the Province of Keiki, and is the commercial and political capital of Chosen, or Korea. The city lies on a fairly level plain with the lofty range of the Hokkanzan, or Pukhan Mountains, to the north and the tranquil Kan River to the south. As in the case of most old cities on the mainland, Keijo is surrounded by a crenelated wall, originally erected for defensive purposes,

about seven miles long, and from ten to twenty feet high. This wall is pierced by eight gateways, of which the largest are the Nandaimon, or Great South Gate, and Todaimon, or Great East Gate. The estimated population is about 300,000, of whom close on 60,000 are Japanese, with a small sprinkling of European peoples. The principal native street is Shoro (Bell Street), and the most flourishing Japanese and foreign street is Hon-machi (Main Street).

Keijo is in railway communication with Fusan to the southeast, from which port all traffic with Japan is maintained, the steamer journey across to Shimonoseki occupying about fourteen hours. On the east the port of Jinsen is connected with Keijo by rail, and to the northeast runs the main line of the railway, forming connection with the South Manchuria Company's system, and constituting an important link in the trans-continental route to Petrograd and Ostend. Reference has been made to the changed aspect of Seoul under Japanese influence. Old Seoul was always noted for its squalor and general dilapidation. For centuries it was the home of the King, or Emperor of Korea, and around the court grew up a horde of parasites and exploiters, who cared more for an easy life than they did for the betterment of the city. The Japanese have made the city the seat of the Government-General of Chosen, and have erected fine administrative buildings, besides giving Keijo a greater commercial aspect, and generally improving the architecture and condition of the place. A destructive fire of some years ago was also not an unmixed disaster, for it led to the re-building of a considerable portion of Keijo. Sanitation has also been improved, and to-day Keijo can offer attractions to the visitor more substantial than old ruins and offensive conditions.

It is not fair to give all the credit for modernising Keijo to the Japanese, because prior to their control of Korea, the city was beginning to show some signs of progress. An electric tramway system was installed some eighteen years ago by an American firm. This was transferred to the Keijo Electric Company a few years back, and is now operated along improved lines. The total extent of track is fourteen miles. Modern hotels have been erected. The best is the Chosen Hotel, managed by the Chosen Railways Administration. The ground in which this splendid structure stands originally formed part of the precincts of "The Temple of Heaven."

Keijo as a city of importance in Oriental history dates back to about 1394, when it became the capital of the kings of Korea, who in later years elected to be styled emperors.



SKATING ON THE RIVER KAN, NEAR RYUSAN



KEIJO ELECTRIC CO., LTD.: THE GAS-PRODUCING PLANT—VIEW OF THE POWER STATION—THE TRAM CAR SHED



DAIDO-MON GATE, KEIJO

NANDAIMON-DORI, KEIJO (SEOUL)

NANDAI-MON (SOUTH GATE), KEIJO

The city was founded as the capital of Korea on the rise of the Li dynasty. The first of this line of kings built the Keifuku Palace, and when this was ready the seat of Government was removed to Keijo. In 1396 the work of building the walls was commenced, the king requisitioning the services of 200,000 men for the work. Fortresses and other defensive works were also built, but as the glory of the Korean Kingdom departed the whole place fell into a state of disrepair. The Li dynasty lasted till Korea was incorporated in the Japanese Empire, when the Emperor and the Imperial Family were pensioned off. Most of the ancient buildings, such as palaces and public structures, have been turned into museums, wherein are to be found much in the way of art treasures, paintings, porcelain ware, and so on. There are many show places of particular historical and general interest, and undoubtedly some of them possess great architectural beauty and grandeur. The Keifuku-kyu is a case in point. This comprises a number of buildings erected in 1850 by the despotic regent. Tai-in-kun, who impressed workmen into his service and

secured the necessary funds for his house-building by extortion. This palace stands on the grounds of an ancient palace which was fired by the Koreans in 1592 before they fled from the Japanese who had invaded the country, and captured Seoul.

Keijo contains a large number of public buildings erected by the Japanese. There are also the consulates of the Allied and neutral Governments, and many fine commercial structures. The Keijo Commercial Museum is a feature of the strong effort being made by the Japanese to instill commercial ideas into the minds of the Koreans. Admission is free, and the visitors may see a fine display of sample products of the agricultural, fishing, mining, and other industries. As a commercial centre Keijo is yet backward, as compared with the larger cities of Japan and China, but with the effective development of the resources of the country, there is no reason to doubt that it will yet take its place amongst the great cities of the Orient.

KEIJO ELECTRIC CO., LIMITED

This is a Japanese company, having its head office at No. 16 Shinyemon-cho, Nihon-

bashi-ku, Tokyo, and with branches throughout the most important centres of Chosen. The company was established in 1908 with a capital of Yen 3,000,000. In the following year the Kambi Electric Co. was bought up, and the name of the combined concern became the Nikkan Gas Electric Co., Ltd., business being conducted at Seoul. The Bazan branch was opened in 1911, and the following year that at Chinkai was started. The Jinsen Electric Company was bought out in 1912, and the new works gave the company its fourth branch. In 1915 the name of the company was changed to its present title, *viz.*, the Keijo (Seoul) Electric Co., Ltd. Thus through these successive changes the company has gone on expanding, and increasing its capital, which to-day is Yen 9,000,000, divided into 180,000 shares.

The Keijo Electric Co., Ltd., engages in the supply of electric light and power for all purposes, the supply of coal gas, power for electric tramways, sale of coke and coal tar, and sulphate of ammonia. Some idea of the extent of the company's operations may be gathered from the following figures: Electric lights supplied — Seoul, 83,407; Jinsen, 10,744;

Bazan, 2,556; Chinkai, 3,313; total, 100,020. Electric power supplied — Seoul, 1,502 horsepower; Jinsen, 596 horsepower; total 2,098. Gas supplied — Seoul, 11,379 lights, and 8,882 items for heating purposes. The company operates 16.23 miles of electric tramways. Its output of coke for the six months from January to June 30, 1917, was 2,618.25 tons. In the same period the works produced 1,097.94 tons of coal tar, and 16 tons of sulphate of ammonia. A lucrative business, which is rapidly increasing, is enjoyed by the company for its by-products such as coke, coal tar, and sulphate of ammonia. Coke is demanded by several factories. Coal tar is supplied to the Korean Administration Board for road-making use, and sulphate of ammonia finds a ready sale throughout Manchuria as a fertilizer.

The principal officials of the Keijo Electric Co., Ltd., are: Directors, Messrs. Shintaro Ohashi (President), Sei-i Oka (Managing Director), Naoharu Shiraishi, Tahei Yamaguchi, Inki Pak, Kan-ichi Ito, and Dembei Shimogo; Auditors, Messrs. Michitsugu Hira-

sawa, Michihiko Nishimura, and Gentaro Hagiwara. The accompanying balance sheet will show the prosperous condition of the company.

The gross profit available at the end of the period under review was Yen 378,923.34,

which was distributed as follows: To Reserve fund, Yen 18,000; special reserve, Yen 15,000; employees' retirement fund, Yen 3,000; bonus, Yen 10,000; dividend at 9 per cent per annum, Yen 286,875, leaving a balance to carry forward of Yen 45,148.34.

BALANCE TO JUNE 30, 1917

| ASSETS | LIABILITIES |
|---|--|
| Yen | Yen |
| Unpaid capital.....2,250,000.00 | Capital.....9,000,000.00 |
| Business establishment.....6,942,501.58 | Reserve fund.....131,000.00 |
| Business suspense account.....12,320.42 | Special reserves.....129,000.00 |
| Goods in warehouses.....343,201.06 | Employees' retirement fund.....2,510.80 |
| Drafts received.....2,088.50 | Unpaid dividends.....7,807.56 |
| Money temporarily paid.....4,201.11 | Guarantee money for contracts.....14,731.00 |
| Money to be collected.....206,954.29 | Guarantee money for personalty.....38,990.09 |
| Securities.....366.00 | Money temporarily received.....1,356.19 |
| Commodities in guarantee.....1,075.00 | Money not yet paid.....148,499.74 |
| Cash at bank.....62,475.76 | Brought forward from last term.....33,121.56 |
| Cash on hand.....26,735.00 | Profit for the term.....344,901.78 |
| <i>Total.....Yen 9,851,918.72</i> | <i>Total.....Yen 9,851,918.72</i> |





THE NEW GOVERNMENT OFFICES AT TAIPEI

JAPAN'S COLONIAL EMPIRE

LI. TAIWAN (FORMOSA)

HISTORY—AREA, PHYSICAL FEATURES, AND POPULATION—ADMINISTRATION—FINANCE—COMMERCE
AND TRADE—INDUSTRY—COMMUNICATIONS—EDUCATION—COMMERCIAL NOTICES

FORMOSA, called Taiwan by the Chinese and Japanese, is Japan's southernmost colony, ceded to her by China after the war with that country in 1895. The island was known to the Chinese from at least the seventh century, though they did not attempt to colonise it until eight or nine hundred years later. Owing to the hostile tribes, mostly of Malayan stock, who inhabited it, the Chinese settlements on the island were never quite successful. The first Europeans to reach the island were the Portuguese, who were so struck by its pleasing appearance rising above the blue sea that they called it Formosa, that is, *The Beautiful*, a name it has borne to Europeans ever since. The Spanish, Dutch, English, and Japanese all, in turn, gained a footing on the island during the seventeenth century, but each failed to hold it. The Dutch, however, did most for the civilising of the place, for, during the forty years of their occupation, while repaying themselves abundantly in a pecuniary way, they tried in some measure to educate and enlighten the savages, even "educating the women," as a Japanese writer naively puts it. In the middle of the seventeenth century there arose a remarkable

adventurer named Koxinga, called Kaksenya by the Japanese, the son of a Chinese pirate by a Japanese mother, who drove out the Europeans and established a dynasty lasting from 1662 to 1683, when it was subdued by the Manchu invaders who had recently established themselves on the Throne of China. For the succeeding 280 years Formosa remained a part of the Chinese Empire, whose people with their accustomed industry digged and sowed and planted, doing what they could to civilise the inhabitants, their efforts for the most part being a failure.

Japan made a descent on the island in 1874 to punish the savages for murdering some fishermen of Luchu who had been cast ashore on Formosa, an astute stroke of policy which helped to substantiate the hitherto doubtful claim of Japan to the archipelago of Luchu. China did her best to establish an effective rule in Formosa, but her administration was never successful and constant raids by the savages discouraged settlement save in the coast towns and villages, the best part of the island being abandoned to the wild tribes. The Pekin Government regarded Taiwan as a thorn in the flesh, an insoluble problem, and was greatly relieved when Japan asked

for the island as part of her indemnity after the war of 1894. Those who have read the memoirs of Li Hung-Chang, who represented China during the peace negotiations at Shimonoseki, will remember how delighted he was, and never so surprised in his life, when he found that Prince Ito, the Japanese envoy, really wanted Taiwan. While the shrewd Chinese statesman pretended to hesitate, he admits that he was trembling within lest Japan should change her mind before the cession of the island was accomplished. From this it can be easily imagined that Japan had no easy task on her hands in taking over this island of savages and undertaking to establish upon it Imperial rule.

AREA, PHYSICAL FEATURES, AND POPULATION

Taiwan consists of the island of Formosa, the Hokoto Islands, called by the Europeans, the Pescadores, and several smaller islands lying off the coast of the main island. The total area of the main island is 13,911 square miles, and of all the islands comprising the colony, 13,944 square miles. Taiwan is about 264 miles in length and from 60 to 80 broad, lying between 21° 45' and 25° 38' North

latitude, and $120^{\circ} 2'$ and $122^{\circ} 6'$ East longitude. The Tropic of Cancer divides the island about the middle. The western coast is a low alluvial plain, some 20 miles broad at its widest, covered by tea and sugar plantations and agricultural settlements. The remainder of the island is mountainous except the fertile plain of Giran on the east coast, and some highly productive valleys in the neighbourhood of Kwarenko and Pinan, as well as the plain of Ako in the south. From north to south the island is traversed by a range of mountains of considerable elevation, with parallel ranges sloping toward the west until merging in the fertile undulating plain already mentioned. The mountains break off in steep precipitous cliffs on the east coast, some of which rise 7,000 feet sheer from the sea. Among the higher mountain peaks of Taiwan are Mount Sylvia, 13,000 feet, and Mount Niitaka, 14,500 feet, with the volcanic peak known as Daiton, 3,500 feet in the north, round which are numerous hot springs. The mountains are clothed in virgin forests and scantily peopled by the savage aborigines of whom there are several tribes, speaking as many dialects, mutually unintelligible, and often engaged in internecine strife. Some tribes, especially those in the north, are headhunters, and every youth has to produce one human head as a trophy before he is permitted to marry. Operations against these hostile tribes are constantly under way, and the guard lines are being pushed steadily forward, yet after more than twenty-five years of occupation



GENERAL BARON TEIBI ANDO, GOVERNOR-GENERAL OF FORMOSA

and warfare Japan has not succeeded in bringing all the savages under her jurisdiction. (This subject will be more fully treated under the head of Administration.) The rivers of Taiwan are small and swift, and in the rainy season and during typhoons are subject to destructive floods. Along a coastline of more than 700 miles there are few bays, except the harbours of Keelung and Tamsui in the north and Takao in the south, and even in these the

anchorage have to be greatly improved. The temperature of the island is naturally very high, seldom falling below 90° F. A northeastern monsoon brings a heavy rainfall in the north during the winter months, while a southwest monsoon causes heavy precipitation in the south in summer. The total annual rainfall at Taihoku (Taipeh), the capital, was 2,030 mm. in 1917, with 185 days of wet weather.

The total population of Taiwan in 1917 was 3,752,710, or about 168 to the square mile. Of the total population, 133,937 are Japanese; Formosans of Chinese and mixed blood numbered 3,265,169; foreigners, 19,164; savage aborigines, 125,283, though the latter figure must be taken as very uncertain. The annual births recorded number 145,000 to 87,000 deaths. There are eleven cities of over 10,000 inhabitants, the largest by far being Taihoku (Taipeh) with about 100,000, Keelung coming next with 19,000, and the rest all smaller. The aborigines are divided into northern and southern tribes, living in 672 communities. The northern tribes are the most savage, the southern being more amenable to civilisation. Life in the less settled parts of Taiwan continues to suffer from raids of the aborigines. In 1912 as many as 661 police were killed and 886 wounded in these raids, while the number of noncombatants killed was 816, with 889 wounded. Savages who commit murder, or are taken as inciters of insurrection, are always executed. Sometimes in one year several hundred are apprehended and sen-



SHIKANOSUKI NIMOTO, ESQ., ACTING DIRECTOR, FORMOSA GOVERNMENT RAILWAYS—HIROSHI SHIMOMURA, ESQ., CIVIL GOVERNOR OF FORMOSA—SAGATARO KAKU, ESQ., OF FORMOSA GOVERNMENT MONOPOLIES BUREAU



STREET SCENES IN TAIPEH: HOKUMANKOGAI AND JHONANGAI

tenced to death for promoting rebellion. As the savages occupy the most inaccessible mountain fastnesses it is as dangerous as it is difficult to pursue them. The barrier running along the frontier between savagery and civilisation is guarded by 5,339 men, of whom 2,246 are natives and 3,083 are Japanese police officers, covering in all a distance of 360 miles, 280 miles of which are protected by charged barbed wire, from nine batteries placed at strategic points. In the seven years dating from 1910 the Government spent some 1,600,000 yen on the subjugation of the savages, 9,750,000 on the guard zone, and 5,134,000 on active warfare against them. The total outlay on account of the aborigines, however, was over 20,000,000 yen. There were four general campaigns in all. The first one, from May to October, 1910, against the Gorgan tribe in the south, in which 4,000 police and troops took part; the second campaign against the Moricowan tribe in mid-Taiwan, lasting through August and September, 1911; and in July, 1913, an expedition carried out against the Kinagli

in the north with a military force of 3,700. The fourth and largest campaign was that carried out against the Tarco tribe by 12,000 troops from May to August, 1914. This tribe, which numbers more than 10,000, occupies the central mountain range opposite Kwarenko on the east coast. By these and other minor campaigns against the aborigines some 551 tribes, representing about 116,744 individuals, have been brought into subjection. It is reported by the officials that there are 121 tribes, comprising some 13,000 persons, yet to be dealt with. As no reliable estimate of the number of savages has yet been reached, the figures named can only be taken as approximate with reference to the number of savages yet untouched by Japanese rule. Like the proverbial grain of salt on the bird's tail, if the authorities could get near enough to number the savages, their capture would be easy. However, after a long and ugly history, consisting mainly of a series of horrors, with bloodshed, plague, battle, murder, sudden death, and exploitation, the unhappy natives of the "island

beautiful" may soon see the light of better days, though the hatred which the natives bear their conquerors will take many a year to abate. Complaints as to the wisdom and alleged inhumanity of Japan's way of dealing with the aborigines of Taiwan will be found more critically treated under the subject of the island judiciary.

ADMINISTRATION

THE central organ of the Taiwan Government is the office of the governor-general of the colony, whose headquarters are at Taihoku, the administration covering the adjacent islands as well. The governor-general carries on his administration chiefly through provincial organs, such as provincial chiefs and their subordinate officers, as well as through district, town, and village headmen, together with numerous special offices, some of which are temporary and others permanent, including law courts, procurator's office, railway department, monopoly bureau, public works department, departments of manufactures, customs, education, police



MOUNT NIITAKA, KAGI DISTRICT, FORMOSA

and prisons, communications, harbours, shipping, and agriculture. The governor-general of the colony is always an army officer, and the general tone of the administration is military. Perhaps this is necessary in a country where law and order never prevailed before Japan's occupation. The inhabitants of the island, being for the most part descendants of rebels and robbers taking refuge on the island from the Chinese coast, are admittedly a difficult race to govern. But the conviction of many who have made a study of the subject is that government of a less military nature and more under the control of the home authorities would be better adapted to the pacification of the rebellious element. Such was the nature of the first government of the island under the late General Count Kodama. Until he assumed office in 1898 and undertook the task of governing them, the people of Taiwan had never really been controlled. The progress of the colony under his rule was remarkably rapid and humane. He found practically no government, savages and insurgents committing depredations unmolested, infectious diseases rife, only a few miles of wretched railway service, and no good harbours. During his ten years of administration he reclaimed thousands of acres of land formerly overrun by savages, opened up productive sugar plantations and forest industries, reorganised the communications of the island, and established a modern system of sanitation, at the same time offering every encouragement to colonisation. The Government adopted a system of financial assistance to nascent industries, the establishment of model institutions and a lengthy programme of public works, including railway extension, irrigation, road construction and a monopoly of salt, opium, camphor, and tobacco. Governor-General Kodama departed leaving behind him a lasting memory of splendid service.

His successor, General Sakuma, introduced ten years of stern administration that has attracted severe comment from many quarters, especially as regards his method of dealing with the aboriginal races. So averse to his rule were the savages that they arose in almost constant insurrection. The Kodama administration had adopted a policy of not rushing the subjugation of the tribes, but his successor reversed this for a programme of subjugation by force, involving a total outlay of 21,000,000 yen, with very harsh results that can hardly be said to have justified the losses in men and money. He succeeded, however, in extracting from the aborigines some 27,000 firearms, as well as killing a great many persons, and the administration claimed to have for the most part crushed their antagonism. The peaceful means which the administration of Governor-General Sakuma subsequently sought to adopt were negated by the strong measures by which he had already created terror and hatred among the tribes. Reports of torture and other cruelties to the natives are alleged untrue by the officials of the colony, who declare that only the weapons and modes of legitimate warfare were used, but independent reports to the contrary circulate and are believed by responsible persons.

The present Governor-General, General Baron Ando, is a man of excellent and intelligent character, with high ideals as to the treatment of native races, but the highest officials are not always able to control the deeds of those below them. He has had

no easy task to follow his predecessor and make some attempt at appeasing the savages by the adoption of a more educative policy. Some of the more recent uprisings of the Taiwan aborigines have been due to the pernicious influence of unruly elements on the opposite Chinese coast. Between 1907 and 1915 there were eight raids from the mainland. The raid in 1915 was the gravest, when Ra Fukusei, a rebel chief, conspired with 500 aborigines to attack the Government offices at Taihoku (Taipeh), the plot being detected before it was too late. In 1915 another insurrection broke out, when 15 Japanese were killed. By the aid of troops 1,413 of the rebels were arrested and 866 sentenced to execution, but the sentences of all save 95 were commuted under amnesty on account of the Imperial coronation.

FINANCE

When Taiwan came under the civil administration of Japan in 1896 a policy was adopted looking to the financial independence of the island. At first revenue was supplemented by grants from the National Treasury, but the rapid progress of the colony rendered such grants less necessary year by year until the amount fell from 6,940,000 yen in 1897 to 2,500,000 in 1904, and to only 700,000 in 1910, since when no grant has been necessary. Thus not only has the island become independent financially but its finances have expanded from a budget of 10,000,000 yen in 1897 to about 40,000,000



BRIDGE OVER THE KATANSUI KEI, AKO DISTRICT, FORMOSA

in 1917. Undertakings such as land readjustment, waterworks, harbour construction, and railway extension, however, were paid for by public loans amounting to some 32,000,000 yen, aided to some extent by increase of ordinary revenue. Public undertakings contemplating an outlay of some 38,900,000 yen are still under way, financed so far by the Bank of Taiwan, to be supplemented by temporary loans. The following table gives the revenue and expenditure of Taiwan at three periods separated by five years for the sake of comparison:

To maintain the revenue of the colony almost every species of taxation is resorted to, especially for local purposes, including taxes on tea, sugar, *saké*, mining, registration, clearance fees, textile fabrics, customs, tonnage dues, house tax, business tax, and so on. There is much complaint among the natives regarding official imposts, labour often being requisitioned to the great inconvenience of the victims.

When Japan took over the administration of the island there were no banking facilities of any account in Taiwan. Owing to the

REVENUE

| SOURCES | 1907 | 1912 | 1917 |
|--|------------|------------|------------|
| | Yen | Yen | Yen |
| Ordinary: | | | |
| Inland taxes..... | 5,794,855 | 13,464,482 | 6,947,154 |
| Customs duties..... | 2,142,077 | ..... | ..... |
| Tonnage dues..... | 18,389 | 29,166 | ..... |
| Public undertakings and State property.... | 20,092,725 | 24,729,654 | 28,484,479 |
| Stamp receipts..... | 579,695 | 4,002,832 | 1,037,530 |
| License fees..... | 4,045 | 3,347 | 4,024 |
| Miscellaneous receipts..... | 218,332 | 301,438 | 1,266,734 |
| <i>Total</i> | 28,850,118 | 42,530,919 | 37,739,921 |
| Extraordinary: | | | |
| Sales of State property..... | 87,688 | 119,064 | 502,231 |
| Subsidy from National Treasury..... | 1,000,000 | ..... | ..... |
| Loans..... | ..... | 3,427,143 | 1,550,000 |
| Surplus of preceding year..... | 5,357,968 | 14,218,594 | 188,703 |
| Miscellaneous receipts..... | ..... | 137 | 48 |
| <i>Total</i> | 35,295,774 | 60,295,857 | 39,980,903 |

EXPENDITURE

| SOURCES | 1907 | 1912 | 1917 |
|----------------------------|------------|------------|------------|
| | Yen | Yen | Yen |
| Ordinary: | | | |
| Administration office..... | 775,186 | 1,287,590 | 1,279,931 |
| Judicial courts..... | 371,895 | 464,302 | 456,984 |
| Local government..... | 593,429 | 940,025 | 947,984 |
| Police..... | 350,080 | ..... | ..... |
| Prisons..... | 495,232 | 516,030 | 544,812 |
| Hospitals..... | 297,371 | 490,428 | 579,174 |
| Custom houses..... | 277,851 | 330,697 | 311,327 |
| Government railways..... | 1,441,152 | 3,558,362 | 3,410,535 |
| Communications..... | 1,195,626 | 1,525,069 | 1,560,607 |
| Monopoly Bureau..... | 8,790,914 | 9,158,851 | 10,511,611 |
| Loan redemption..... | 2,239,771 | 3,109,568 | 4,071,399 |
| Other expenses..... | 2,731,166 | 4,306,849 | 7,968,516 |
| <i>Total</i> | 19,559,673 | 25,687,771 | 31,642,880 |
| Extraordinary: | | | |
| Special undertakings..... | 2,686,593 | 2,936,685 | 1,550,000 |
| Public works..... | 3,290,426 | 7,918,353 | 4,092,503 |
| Aids to industries..... | 525,076 | 1,560,426 | 842,821 |
| Subsidies..... | 783,500 | 1,032,233 | 1,450,864 |
| Other expenses..... | 754,485 | 8,053,108 | 401,835 |
| <i>Total</i> | 27,599,753 | 47,188,576 | 39,980,903 |



SCENES ON BANANA AND PINEAPPLE PLANTATIONS, FORMOSA

rapid development of industry and commerce a special bank was established, called the Bank of Taiwan, in 1899, which became the central bank of the colony, commencing with a capital of 5,000,000 yen, recently increased to 20,000,000 yen. The bank is empowered to issue convertible notes on a gold basis, and has fifteen branches, and eleven sub-branch offices in the island and elsewhere. In addition, there are also the Thirty-fourth Bank, the Taiwan Commercial and Industrial Bank, the Kagi Bank, the Shoka Bank, and the Niitaka Bank, with branches in the more important centres of population, which give great assistance to the people. Taiwan also has some fifty-eight credit associations for supplying financial accommodation to the rural settlements. The ancient custom of the island in hoarding coin is fast disappearing, and bank deposits are consequently increasing. In 1911 the coinage of the island became uniform with that of the Empire.

COMMERCE AND TRADE

No phase of Japan's connection with the island of Taiwan has been more encouraging, perhaps, than the development of trade that has marked the course of her administration, especially with Japan herself. The various enterprises set on foot by the Government, the regular steamship services opened, and the increase of colonisation have all tended to enhance the interests of commerce in an unprecedented manner. In 1900 the total foreign trade of the island was about 21,000,000 yen in value, and some 16,000,000 yen with Japan proper, or about 37,000,000 yen in all. In 1910 it rose to over 32,000,000

with foreign countries and 78,000,000 yen with Japan, a total of 110,000,000 yen. In 1915 the trade of Taiwan with foreign countries amounted to 28,000,000 yen and 100,700,000 yen with Japan, or a total of some 130,000,000 yen, the distribution being as follows:

| COUNTRIES | EXPORTS | IMPORTS |
|-----------------------------|------------|------------|
| | Yen | Yen |
| Japan..... | 60,192,896 | 40,587,492 |
| United States..... | 6,180,053 | 761,518 |
| China..... | 4,994,324 | 20,688 |
| Great Britain..... | 931,763 | 711,949 |
| Dutch East Indies..... | 1,968,378 | 170,266 |
| British India..... | 257,932 | 1,677,823 |
| Hongkong..... | 583,748 | 20,688 |
| Annam and French India..... | ..... | 46,622 |
| Asiatic Russia..... | 24,542 | 2,414 |
| France..... | 338,308 | 13,484 |
| Germany..... | ..... | 105,806 |
| Turkey..... | ..... | 32,686 |
| Australia..... | 60,691 | 11,117 |
| Other countries..... | 90,539 | 1,564,638 |

The chief exports in order of value are tea, camphor, rice, flax, jute, hemp, lungwort, sugar, coal, and turmeric, while the principal imports are opium, tobacco, kerosene, timber, paper and paper foils, shirtings, cottons and Italians, grass cloth, oil cake, tea seed, packing mats, flour, rice, and rails. It is only too apparent that while trade with Japan increases that with other countries declines or remains stationary, trade on the whole, however, leaving a favourable balance to the colony.

INDUSTRY

THE main industries of the island are in tea, sugar, agriculture, and the development of forest products. The climate and soil of Taiwan are thoroughly adapted to agriculture, which the authorities are doing everything possible to encourage. The gradual reduction of the savages has brought larger and larger areas under cultivation, while the Government system of irrigation is greatly increasing the fertility of the land as well as making more land available. Rice grows abundantly in any part of the island where there is a sufficient supply of water. Two crops can be raised annually, the total crop of the island being about 25,000,000 bushels, most of which is exported to Japan. The area under rice is constantly increasing, which, with improved water resources and the use of artificial fertilizer, promises a large increase of crop. The tea plantations in the north are also extending, the varieties grown being Oolong and Pouchong, with an annual crop valued at about 7,000,000 yen.

The cultivation of sugar cane has shown remarkable development and is now one of the most promising industries of the colony. Thirty-six big mills with the latest machinery are turning out some 500,000,000 pounds of sugar annually, reducing imports of this article from Java. Industries in sweet



MOTOJIRO TAKATA, ESQ., DIRECTOR OF THE BUREAU OF INDUSTRIES, GOVERNMENT OF FORMOSA

potatoes, beans, peas, jute, hemp, indigo, and live-stock are fast increasing. The forest regions of the island abound in valuable timber of various kinds, especially in the Arisan hills, and already Formosan lumber is taking an important place in the markets of the East. The camphor tree takes first rank in economy, the exploitation thereof being a Government monopoly, bringing in considerable revenue. The most important mineral products are gold, silver, alluvial gold, copper, coal, petroleum, sulphur, and phosphorus, most of which are produced in the north of the island. The mineral output in 1915 was as follows:

| MINERALS | AMOUNT | VALUE |
|----------------|---------------|-----------|
| | | Yen |
| Gold..... | 56,203 oz. | 2,294,050 |
| Coal..... | 279,368 tons | 1,459,478 |
| Copper..... | 1,482 m. tons | 1,051,604 |
| Petroleum..... | 662,461 gals. | 83,470 |

As already indicated, opium, salt, camphor, and tobacco are monopolies carried on by the Government. When Japan took over the colony opium-smoking was prohibited, as well as the importation of the drug, but to accommodate the confirmed victims of the habit who could not survive a sudden deprivation of their pipes, the Government established a factory for making opium doses to be sold only by licensed vendors and to persons having Government license to smoke opium. The idea was to issue licenses only to habitual

victims and to no others, so as to allow the users of the drug to disappear gradually and no new smokers to be licensed. During the years from 1900 to 1914, for example, the decrease in the number of opium-smokers was 92,069. Complaints have been made that the decrease of victims is not sufficiently rapid owing to carelessness or conniving in issuing licenses to new smokers. The monopoly being very profitable, there is, of course, a temptation to encourage rather than discourage the use of the drug, but it can hardly be said that such encouragement is official. The amount annually imported

by the Government shows a gradual decline from a value of 3,371,759 in 1906 to 2,190,897 yen in 1915. Perhaps the regulations of the Government for the prevention of opium-smoking are to some extent nullified by the number of opium dens and their victims to be seen in the various towns where Chinese congregate.

The salt industry has been greatly developed in the island under Government auspices, as well as improved in quality, the total area now under salt fields being over



BUMBUGAI, TAIPEH — FUZENGAI, TAIPEH — FUGOGAI, TAIPEH, SHOWING THE STATION HOTEL
ON THE RIGHT AND THE MUSEUM IN THE DISTANCE

5,000 acres, yielding some 160,000,000 pounds of evaporated salt annually. While the monopoly improves the quality it increases the price of the salt beyond what it ought to be. The camphor industry is one of the most profitable of the Government undertakings, as the chemical is used in the manufacture of celluloid, drugs, antiseptics, and in India for making incense. Several private companies are now promoting camphor afforestation in Taiwan. The climate of the island is very favourable to the cultivation of tobacco, the plant being made chiefly into cigarettes and cut tobacco for native consumption. The annual output is about 1,600,000 pounds, which supplies only one-

third of the total demand of the colony, the shortage being imported from Japan. The tobacco industry is still capable of much greater development. The total income of the Government from its monopolies in Formosa must be well over 10,000,000 yen, since the expenditure of the Monopoly Bureau is above that sum.

Such industries as indigo-growing, hemp weaving, and the manufacture of paper from bamboo fibre are making headway, while the Mitsu Bishi paper mill is now turning out a good quality of India paper from wood fibre. The manufacture of imitation Panama hats is also coming to be an important industry. Marine industries are progressing

though still carried on in rather a primitive way. There are some hundreds of acres of oyster hatcheries, while deep sea and coast fisheries reach an annual value of about 1,500,000 yen, with some 300,000 yen more for prepared fish products.

COMMUNICATIONS

No sooner had Japan established her administration in Taiwan than she planned a trunk line of railway traversing the island from north to south so as to connect the ports of Keelung and Takao, a length of 247 miles, to open up the heart of the country to colonisation and industry. The line was completed in 1908 by reconstructing and utilising the



REPRESENTATIVE JAPANESE AND FOREIGN BUSINESS MEN OF TAIPEH

(Left) Mr. C. BARACLOUGH, Manager for Jardine, Matheson & Co., Ltd. (Upper Row, Left to Right) Mr. H. W. ROWBOTTOM, Manager for Samuel Samuel & Co., Ltd. — Mr. TETSUTARO SAKURAI, President, Bank of Taiwan, Ltd. — Mr. GEORGE BEEBE, Manager for Carter, Macy & Co. (Lower Row) President KIMURA, of the Commercial and Industrial Bank of Taiwan — Mr. KOJURO NAKAGAWA, Vice-President, Bank of Taiwan, Ltd.—Mr. T. HIRATAKA, Manager for Suzuki & Co. (Right) Mr. FRED B. MARSHALL, Senior Partner, Tait & Co.

63 miles laid by the Chinese Government, the total cost being 28,800,000 yen, raised by public loan. The line runs through the important towns of Taihoku, Taichu, and Tainan, the great rice, sugar, tea, and mining districts, and has completely transformed the social and economic conditions of the island. There is a branch railway from Taihoku to Tamsui, 133 miles long, and another from Takao through Kuyokudo to Aiko, a distance of 15.8 miles. The Keelung-Taihoku portion is being double-tracked. The Taito line on the east coast of the island is now under construction at an estimated cost of 4,257,000 yen. It runs between Kwareuko and Pinan, and about two-thirds of the line is already open for traffic. Including trunk and branch lines, the total mileage of railways in Taiwan is now 318. The number of passengers carried during the last year was 5,412,308, and the receipts from the 1,144,553 tons of freight were 4,728,510 yen. In addition to the Government lines, there are numerous private railways for the convenience of the sugar planters, the total mileage of which is 964, carrying 1,111,797 passengers and 137,019 tons of freight annually, together with 1,576,624 tons of freight for the owners themselves. The annual earnings of these light railways in 1914 was 388,467 yen. Extensive

tracks for hand-pushed cars are also in use, reaching a total mileage of 636, carrying 3,691,757 passengers and 365,200,000 pounds of freight on an annual revenue of 957,728 yen.

The steamer services between Taiwan and Japan proper are regular and excellent, the lines being subsidised by the Government. The chief services are under the auspices of the Nippon Yusen Kaisha and the Osaka Shosen Kaisha, some of whose boats running to Formosa are over 6,000 tons, and call at Shanghai and Dairen. Lack of natural ports and harbours has been a great inconvenience to shipping in Taiwan, but the Government of the island is going to immense outlay to remedy this defect by constructing fine harbour works at Keelung and Takao, the former to cost 9,000,000 and the latter 4,733,000 yen. There is also a big traffic by small steamers, sailing vessels, and junks.

Before Japan's occupation of the island there was no postal system. The first service of the kind began with the field service organised by the Japanese army after its occupation of Hokoto in 1895, and the field post offices and telephones then established came under the civil administration after the ceding of the island to Japan. The present post and telegraph system of Taiwan is the same as in Japan proper. The telephone

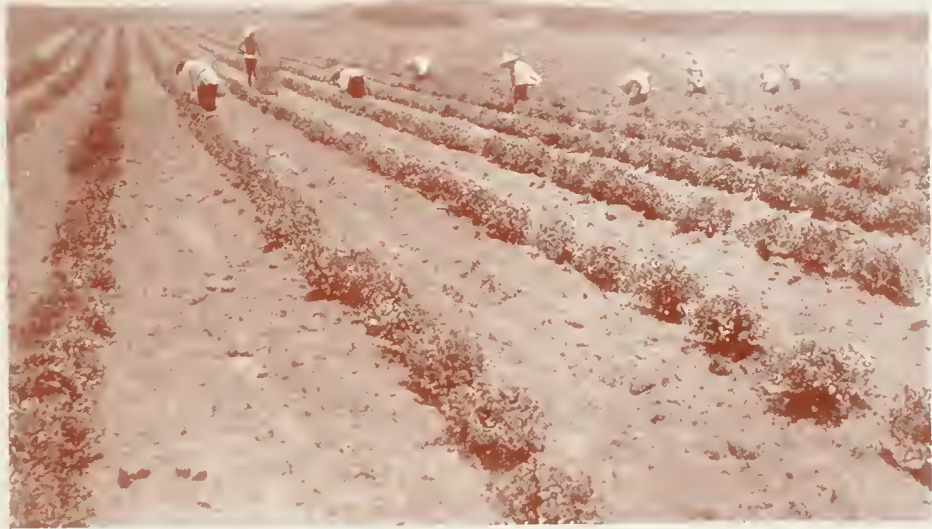
system at Taihoku (Taipeh) is underground. The following figures will show the business done by the Taiwan post offices in 1915:

| | |
|--|----------------|
| Number of offices..... | 158 |
| Length of postal routes..... | 7,665 miles |
| Number of letters and post cards..... | 34,929,042 |
| Number of parcels..... | 522,766 |
| Number of telegrams..... | 1,835,904 |
| Length of wires..... | 2,608 miles |
| Telephone offices..... | 139 |
| Length of wires..... | 12,387 miles |
| Telephone messages..... | 20,162,355 |
| Domestic money orders issued..... | 647,709 |
| Value..... | 11,888,139 yen |
| Domestic money orders paid..... | 360,171 |
| Value..... | 8,238,896 yen |
| Foreign money orders issued..... | 402 |
| Value..... | 13,189 yen |
| Foreign money orders paid..... | 225 |
| Value..... | 9,614 yen |
| Number of postal savings depositors..... | 147,607 |
| Amount of deposits..... | 2,545,370 yen |

The wireless telegraph station at Fukikaku communicates with Japan, transmitting 450 miles by day and 1,200 at night. There is a submarine cable from Tamsui to Nagasaki, a distance of 672 miles.

EDUCATION

THE new administration in Taiwan soon established a system of education adapted to



OOLONG TEA GARDENS, FORMOSA



BANK OF TAIWAN, LIMITED: BRANCH AT KEELUNG—HEAD OFFICE OF THE BANK AT TAIPEH, TAIWAN (FORMOSA)—BRANCH AT KAGI—BRANCH AT KARENKO

the special needs of the colony, chiefly aiming at educating the natives in the language and customs of their new masters. A language school was opened at Taihoku in 1896, and a public school system put into operation in 1898 for the education of native Formosans, and a primary school for Japanese children. In 1902 a normal school was opened for the training of teachers, and later a middle school and a girls' high school at Taihoku, with various technical, medical and other schools with experimental stations for promotion of industrial education. The basis of education is much the same as in Japan, except for the emphasis laid on acquaintance with the Japanese language on the part of native children. Besides the primary and public schools for natives and Japanese, there are schools for the children of aborigines in which courses in agriculture and handicraft are given in addition to the usual subjects. There are kindergartens at Taihoku, Taichu, and Tainan. The Middle school at Taihoku (Taipeh) is quite an institution, with a fine staff of teachers, including some foreigners, and a dormitory for students. The Taihoku Industrial Institute trains students in the various arts and crafts most needed in the colony. The following are the school statistics in Taiwan for the year 1914:

| SCHOOLS | NUMBER | TEACHERS | PUPILS |
|--------------------------------------|--------|----------|--------|
| Elementary schools for Japanese..... | 94 | 385 | 10,380 |
| Public schools for Formosans..... | 268 | 1,345 | 54,969 |
| Middle school..... | 1 | 25 | 623 |
| Girls' higher school..... | 1 | 23 | 341 |
| Language school..... | 1 | 81 | 1,949 |
| Others..... | 14 | 120 | 1,039 |
| Native private schools..... | 576 | 589 | 17,284 |

FORMOSA OOLONG TEA

OF recent years "Formosa Oolong Tea," one of the principal products of the Island of Formosa, long highly esteemed by connoisseurs, has also gained a very considerable reputation in both England and America. In its cup quality it combines naturally some of the best and most essential qualities of the "black" and "green" teas, and has, in addition, a peculiarly fine flavour and delicate fragrance. Unlike many other teas, it has a percentage of tannin which is exceptionally small. Moreover, it is free from effects injurious to the health, even in the case of the most devoted drinker; indeed, it is found to steady the nerves and infuse vigour.

As a blender, the Formosa Oolong Tea may be said to stand alone, and when mixed with the "green" and "black" teas it has a most refining effect, imparting to them a touch of its own delicious flavour, and making for general improvement. Hence it is not with-

out reason that this tea is frequently referred to as the "Tea of All Teas."

Formosa Black Tea is also produced in the island, and, like the Oolong, contains a very small percentage of tannin. It is of a high quality and rich flavour, being much appreciated wherever it has been introduced.

Among the important firms engaged in the export of the Formosan teas are the following: Messrs. Jardine, Matheson & Co., Ltd., Mitsui & Co., Boyd & Co., Tait & Co., Nozawa & Co., J. C. Whitney & Co., and Carter, Macy & Co., principally handling the Oolong brand, and the Nippon Taiwan Tea Co., Ltd., of Ampeichin, Toyen District exporting "Black Tea."

It can be truthfully remarked that the tea drinker who has not yet sampled Formosa Oolong Tea will be agreeably surprised and should not hesitate to give it an early trial.

THE BANK OF TAIWAN, LIMITED

THE Bank of Taiwan, Limited (Kabushiki Kaisha Taiwan Ginko), is under the direct control of the Imperial Government of Japan, and was formed by the promulgation of a special law in 1899 to operate primarily as the Colonial Bank of Formosa and to afford special financial facilities for the encouragement of industry and trade throughout the island.

One of the first important tasks undertaken was the adjustment of the monetary system, then in almost complete disorder, with a naturally adverse effect on the growth of trade. The financing of industries by the bank at very reasonable rates had the immediate effect of lowering the price of money throughout the island, and the trade returns quickly testified to the benefit conferred.

The development of the gold industry and the perfection of the irrigation system may be numbered among the achievements of this institution; indeed, it is often truthfully observed that there are few branches of Formosan industry which do not owe their present success to the helpful aid of this bank.

A network of branches have been opened throughout the island at the following points: Ako, Giran, Kagi, Karenko, Keelung, Makung, Pinan, Shinchiku, Taichu, Tainan, Taipeh, Takow, Tamsui, and Toen, for it will be understood that as a Government concern



SUSPENSION BRIDGE AT DOJO, NANTO DISTRICT, FORMOSA

the bank enjoys many privileges in which other banks do not participate, especially as the sole "Bank of Issue." All departments of modern banking are in operation, particularly foreign exchange, for which, through the medium of its foreign branches at Shanghai, Hankow, Hongkong, Canton, Kiukiang, Foochow, Amoy, and Swatow (China), Batavia, Semarang, and Sourabaya (Java), Bangkok, Singapore, Bombay, London, and New York, and a long list of representatives, the bank has special facilities.

The present capital is Yen 30,000,000, which places the bank well to the fore among the important financial institutions of Japan.

In Japan proper branches are maintained at Tokyo, where new and imposing premises have recently been completed, Yokohama, Osaka, Kobe, and Moji. Further details are given in connection with the bank in the Tokyo Banking Section of this volume. The officers of the bank are: President, Mr. Tetsutaro Sakurai, Vice-President, Mr. Kojuro Nakagawa, and Directors, Messrs. Iyetoshi Sada, Kyoroku Yamanari, and Shingo Minami.



A PICTURESQUE WATERFALL



TAIPEH OFFICES OF THE THIRTY-FOURTH BANK

COMMERCIAL AND INDUSTRIAL BANK OF TAIWAN

IN a colony like Formosa, where a benevolent Administration endows the working man with opportunities to acquire capital sufficient to start in a modest way on his own account, the savings bank is admittedly a most necessary institution. This essential feature was, prior to 1910, supplied somewhat inadequately by the Taiwan Savings Bank, absorbed in the formation of the Commercial and Industrial Bank of Taiwan. The new bank has a capital of Yen 1,150,000 with Yen 750,000 paid up, and operates primarily as a "peoples' bank," affording facilities for the small depositor and accommodation in the form of loans to the merchant and farmer in a small way of business.

The head office is centrally located in Taipei and branches are maintained at Keelung, Giran, Shinchiku, Taichu, Tainan, Takao, Ako, Karenko, Rato, Byoriku, Hozan, and Toko. Incidentally it is interesting to

note that the bank acts for the Government for the collection of taxes in the Gairan, Shinchiku, Ako, and Karenko Prefectures.

That the bank stands in high favour is evident from the fact that since its inception it has paid a ten per cent dividend.

The following gentlemen form the Board of Directors: Messrs. K. Kimura (President), J. Muramatsu, H. Yamashita, T. Arai, K. Kaneko (Directors), G. Tanase, K. Komatsu, Ran Ko Sen, M. Koga, So Un Yei, and Kan Tetsu Kyo (Auditors).

SUZUKI & COMPANY

IN Formosa Messrs. Suzuki & Co. seem to have found an ideal field for the exceptionally enterprising spirit which is so evident in all their undertakings. In the sugar business alone they have 124,950 acres under cultivation, divided among their three mills located at Shinchiku, at Chureki, and at Taiko. A further 3,675 acres is cultivated for the production of hemp and lemon grass. Their mining interests include coal, copper, and iron ore, which is in part exported and partly supplied to the company's iron works for the manufacture of sugar milling machinery, shipbuilding machines, parts, etc. In lumber an important business is done both as regards the exportation of the timbers to Japan and other parts of the Far East, and the milling and preparation for local consumption. At the port of Takao in the south of the island they are at present installing an important shipbuilding plant, which, operated in connection with the iron works and lumber mills, will doubtless achieve the success which characterises everything they touch.



HEAD OFFICE OF THE COMMERCIAL AND INDUSTRIAL BANK OF TAIWAN, TAIPEH



SUZUKI & CO.: UNLOADING CANE FOR THE COMPANY'S MILLS—ONE OF THE NUMEROUS PROPERTIES UNDER CULTIVATION FOR THE PRODUCTION OF SUGAR, LEMON-GRASS, HEMP, ETC.—CLEARING LAND FOR CULTIVATION—THE CHUREKI SUGAR MILL—A CORNER IN THE TAIPEH OFFICE



PREMISES OF MESSRS. JARDINE, MATHESON & CO., LTD., AT DAITOTEI

The Taipeh office is under the direct jurisdiction of the head office at Kobé, but controls the sub-branches located throughout the island at Keelung, Chureki, Taiko, Kagi, Tainan, Takao, also the offices at Amoy, Swatow, and Foochow, China. The combined office staffs of these branches number about 300 clerks, whilst in their various enterprises in Formosa the company employs over 3,000 labourers, and a large number of engineers and experts.

As agents for the Dairi Flour Mill, Ltd., the Kobé Steel Works, the Imperial Brewery, Ltd., the Kanto Sanso K. K. (chemicals and fertilizers), the Sugar Manufacturing Co. of Japan, the Tokyo Marine Insurance Co., and a number of other enterprises, the busi-

ness of the Taipeh branch, in this connection alone, will be understood to reach considerable proportions.

The manager at Taipeh and principal representative for Formosa is Mr. T. Hirataka, who has served with the company for a period of eleven years.

(See index for other references.)

JARDINE, MATHESON & CO., LIMITED

A MORE detailed description of the operations of this most important of British firms in the Far East, of the foundation of the enterprise by Dr. William Jardine, Mr. James Matheson (afterwards Sir James Matheson, Bart., of the Lews), and Mr. Hollingworth

Magniac, as far back as 1832, will be found elsewhere in this volume.

The principal business of the Formosan branch is the exportation of tea, which has grown to very considerable proportions since the establishment of the branch in 1891, prior to which date the business was carried on through intermediaries.

The staff quarters, offices, and godowns, located on the banks of the Tamsue River, cover a considerable area and are of a rambling character, though strongly constructed to withstand the ravages of typhoons, which occasionally cause the flooding of the river. All the firing and other important processes are undertaken on the premises, for which purpose a staff of about forty-five is employed



ATTRACTIVE OFFICES AND STAFF QUARTERS OF MESSRS. SAMUEL, SAMUEL & CO., LTD., AT DAITOTAI, TAIPEI, TAIWAN (FORMOSA)

in the season, as well as a large number of coolies.

Insurance is written as agents for the Hongkong Fire Insurance Co., Ltd., the Canton Insurance Co., Alliance Insurance Co. of London, and the New Zealand Fire Insurance Co.

In shipping, an important business is also carried on as the agents of the Canadian Pacific Ocean Services, China Mutual Steam Navigation Co., Ltd. (New York Service) (India line of steamers, Indo-China S. N. Co., Ltd.), and other companies represented by the head office.

Mr. C. Baraclough is at present Manager at Taipeh, and is assisted by two European tea experts.

(See index for other references.)

SAMUEL SAMUEL & CO.

FROM the notice descriptive of the firm of Messrs. Samuel Samuel & Co., Ltd., contained in the Yokohama Import and Export Section of this compilation, it will be seen that the operations of the company in Japan cover a very wide field, apart from their great interests in other parts of the world.

The branch at Taipeh, established in 1901, is primarily important as representing the following well known companies: Hongkong & Shanghai Banking Corporation; Douglas Steamship Co., Ltd.; Messageries Maritimes; Java-China-Japan Line, Ocean Steamship Co., Ltd.; China Mutual S. N. Co., Ltd.; Chargeurs Reunis; The Swedish East Asiatic Co., Ltd., Gothenberg; The East Asiatic Co., Ltd., Copenhagen; Union

Insurance Society of Canton, Ltd.; Alliance Assurance Co., Ltd. (Marine Dep't.); Commercial Union Assurance Co., Ltd.; Law Union & Rock Insurance Co., Ltd.; Liverpool & London & Globe Insurance Co., Ltd.; Sun Insurance Office; New Zealand Insurance Co., Ltd.; Royal Exchange Assurance Corporation; Manufacturers Life Insurance Co.; New York Life Insurance Co.; The Royal Mail Steamers, and The Blue Funnel Line.

Very large cargoes of tea are annually shipped, as well as other important Formosan products. Further, it is important to note that this is the only foreign company doing an import business to the island. Formerly they were the sole agents for the Camphor Monopoly, and may be regarded as mainly



TAIT & COMPANY: PREMISES AT DAITOTEL, TAIPEH, TAIWAN—SCENE IN THE TEA ROOM

instrumental in building this business, which in their hands grew to considerable dimensions.

From the accompanying illustration the offices and staff quarters will be seen to be of a most up-to-date type. They cover, in connection with two long and spacious godowns, about 1,500 *tsubo*.

Mr. H. W. Rowbottom is the present Manager at Taipeh, assisted by a staff of fourteen clerks, and two European assistants. Sub-branches are maintained at Keelung and Takow. (See also pages 245 and 791.)

TAIT & CO.

A HISTORY of the port of Amoy which omitted important reference to the firm of Tait & Co. would be incomplete, inasmuch as this business was founded in 1846, or within four years of the signing of the Treaty of Nanking, and within five years of the actual occupation of the port by the British. In 1845 the British garrison was withdrawn and the small group of British merchants left to their own resources.

Tait & Co. had come to China to stay and neither the rising of the insurgents under Huang Teu-mei, Huang Wei, and Magay

(Ma-kin), in 1853—the first signs of unrest experienced in the port in connection with the Taiping Rebellion—nor the stirring events of 1857-62, during the second Anglo-Chinese war, had the effect of deterring James Tait, the founder of the business, from pursuing his policy as a pioneer of British trade. The founder has been dead for many years and the business has passed into the hands of worthy successors in the persons of Mr. Fred B. Marshall, the senior partner, and Mr. W. Wilson.

The principal business of the firm to-day is the exportation of Formosa tea to Great Britain and her colonies and to America, for which purpose offices were first established in Formosa in the early sixties—first at the port of Tamsue, and later removed to Daitotei, a suburb of Taipeh. Mr F. B. Marshall takes charge in Formosa, and in the season employs a staff of about 45 assistants and from 150 to 200 coolies for picking, packing, etc., according to the amount of tea handled. The crop naturally varies with the season, but is seldom far from the 100,000 (half chests of 40 pounds) mark, and, indeed, has risen upon occasion to as much as 103,000 for the year.

Mr. Marshall joined the firm of Tait & Co. in 1886, having served the intervening six years since the completion of his education with the old London tea firm of Messrs. Peek, Winch & Co. (now Peek Bros.). His experience of Formosa dates from practically this period; hence his opinions, expressed at various times in interesting contributions to the trade journals, are of special significance. Mr. Marshall draws attention to the value of the Oolong tea as a blender, opining that there is no tea produced to-day in any part of the world that can not be more or less improved by a proportionate addition of the Formosa product. Although the leaf meets all the requirements of the market and is held in high esteem wherever it has been introduced, this gentleman believes that there is still room for improvement, which will be realised when the production is placed on a large scale—in other words, in large and properly organised gardens as opposed to cultivation by the small holder.

Tea is not, however, the sole interest of Tait & Co. in Formosa, as under the title of the Takki Gomi Kaisha (to comply with Japanese mining regulations) they are the owners of a coal and a sulphur mine, both in



OFFICES AND GODOWNS OF MESSRS. BOYD & COMPANY AT DAITOTEL, TAIPEH, TAIWAN (FORMOSA)

operation—the latter producing as much as 2,000 tons annually in times of brisk demand.

The head office at Amoy is one of the finest office premises of the port and is under the direction of Mr. Wilson. The principal business is shipping, as the agents of the P. O. Steamship Co.; banking, as the agents of the Chartered Bank of India, Australia, and China, and the sale of oil as the agents of the Texas Oil Co. This latter agency they hold for both Foochow and Amoy, where they have appointed numerous agents with very satisfactory results. Mr. W. Wilson is at present the President of the Kulangsu Municipal Council and Consul for Belgium and Norway, in which latter capacity his services are particularly valuable on account of his knowledge of the Chinese language, several dialects of which he speaks with fluency.

Old China residents will remember Mr. Marshall as an enthusiastic sportsman, as he takes a keen interest in all branches of sport, especially racing, having on various occasions ridden his own ponies at the Amoy meetings. The accompanying illustrations will give some idea of the Daitotei offices and staff quarters. Mr. Marshall also owns an attractive residence at Shrin, a few miles from Taipeh, where he has cultivated beautiful surroundings.

BOYD & CO.

It is with a sense of satisfaction that one finds a pioneer business like that of Boyd & Co., established for a half century in the tea trade of Formosa, and for a much longer period in Amoy, China, as general merchants, adapting itself to all the innovations and changes of time, with a keenness that guarantees its long continued future success.

The principals in the business to-day are Mr. W. S. Orr, who takes charge in London; Mr. J. S. Fenwick, the resident partner at the head office at Amoy, and Mr. E. Thomas, senior partner, who manages the Formosa interests.

Practically all the tea handled by the firm, an average conservatively estimated at about 70,000 half chests (of 40 pounds) annually, is disposed of in the United States through the medium of Messrs. Robinson & Woodworth of Boston, Mass., and Mr. Charles de Cordoba, their New York agent. The book-keeping, engagement and direction of tea pickers and other coolie labour, numbering in the season as many as 200 hands, is controlled by a comprador department—a system found satisfactory throughout China in all the leading foreign hong. The general supervision, inspection of the leaf, weighing, etc., is in the hands of European experts, under Mr. Thomas, who has had 26 years'



TAIPEH BRANCH OFFICE OF THE FUJITA MINING CO., LTD.

experience in Formosa teas. He is one of the few remaining foreigners who were doing business in the country when it was still part of the Chinese Empire.

The Taipei premises at Daitotei, on the banks of the Tamsui River, cover a considerable area, are well installed, and very strongly constructed—an essential feature in view of the devastating typhoons which occasionally visit the island and cause the flooding of the river, with considerable damage to the property on its banks.

Messrs. Boyd & Co. occupy fine offices at Amoy, where, as agents for the Kailan Mining Administration, the principal business is the bunkering of steamers and the sale of coal. They also do a considerable insurance and banking business as agents for the China Mutual Life and the Mercantile Bank. The principal agencies of the Formosa office are the China Mutual Life, the Ellerman Line of Steamers, Messrs. Dodwell's Steamers, and Lloyds and the London Salvage Association for both Formosa and Amoy.

CARTER, MACY & COMPANY

THE firm of Carter, Macy & Company has been engaged in the tea business for many years, having commenced operations in 1850 as Whitlock, Kellogg & Carter. In 1916 the American International Corporation acquired a controlling interest in the

newly organised firm of Carter, Macy & Company, Incorporated, which at the time was doing the largest tea business in the United States.

The company as now organised represents a complete cycle in the tea trade. It has its own buying organisation, warehouses, packing plants, and shipping facilities in every country where tea is grown, from Ceylon to Japan, backed up by a purchasing and trans-shipping office in London and warehouses and distributing stations throughout the United States. In Canada the distributing house of John Duncan & Company, Limited, of Montreal, is controlled by Carter, Macy & Company, Incorporated.

In Formosa, a factory and staff of Chinese, and godowns for handling stocks are maintained at Taipeh, under the management of Mr. George S. Beebe. Until 1899 the firm's requirements in Formosa Oolong Tea were supplied through local commission houses, when it was decided to establish its own buying branch. In that season 2,200,000 pounds were shipped, since which time the business has increased materially—finally during a series of years reaching the largest average total of any of the exporting houses, with a maximum of 4,000,000 pounds.

THE FUJITA MINING CO., LIMITED

THE Fujita Mining Co., Ltd., operating prior to 1917 as the Fujita Gumi with head



PREFECTURAL OFFICE, TAIPEH, CONSTRUCTED BY GOSHI KAISHA SAWAI GUMI

office at Osaka and the Formosa branch at Taipeh, has been interested in the development of the Formosa mining properties since Japan took over the island at the conclusion of the Sino-Japanese War. One of the first properties to come into their hands was the Tanho Gold Mine in 1896, which is still being very successfully operated.

Quite apart from the usual financial uncertainty which is always understood to exist, the exploitation of mining properties in the island has been a most hazardous business, as the aborigines inhabiting the mountain ranges of the interior are not even to this day entirely subjugated, and formerly constituted a great menace to the safety of the mining exploration parties sent out by the company.

Their depredations grew so serious, indeed, that the Government was moved some years ago to teach them a sharp lesson, which had a salutary effect. It is interesting to note as a

natural corollary that recently the company's engineers were rewarded for the many hardships they had been forced to endure, by the discovery of a number of important exposed copper reefs. Just how this property will develop it is impossible to say, inasmuch as the mining business in Formosa is still in its infancy.

The mining concessions held by the company at present include gold (quartz and placer), silver, copper, kerosene oil, and coal, and cover a total area of nearly 10,000,000 *tsubo*, whilst the concessions applied for and which will in all probability be granted, represent more than eleven times this area. (See Page 477, Mines and Minerals Section, Fujita Gumi.)

SAWAI GUMI

THE head office of this firm of Civil Engineers and General Contractors is located at

No. 3 Nakanoshima, 4-chome, Kita-ku, Osaka, and the Formosa branch at No. 9 Fuchumachi, 1-chome, Taihoku (Taipeh), Formosa. The business, under the direction of Mr. T. Sawai, President, and Messrs. C. Mori and K. Omuro, Directors, was established in 1897, and has played a very important part in bringing about the change that is so noticeable in the business district of Osaka, and in the constructing of the many beautiful public buildings of Taihoku (Taipeh).

All kinds of constructional work is undertaken, including railways, waterworks and harbour improvements, roads, reclamation and tunnel work, garrisons, schools, factories, etc. The fact that the contracts handled by the firm up to the year 1917 represent a sum total equivalent to Yen 26,360,000, gives some idea of the volume of the operations of the Sawai Gumi.





MAGNIFICENT CANE ON THE PLANTATION OF THE IMPERIAL SUGAR CO., LTD., AT MANTOROKU, FORMOSA

LII. JAPAN'S SUGAR INDUSTRY

SUGAR PRODUCTION IN JAPAN PROPER—SUGAR PRODUCTION IN FORMOSA—COMMERCIAL NOTICES

IT is not too much to say that sugar cultivation and refining are among the most flourishing and profitable industries of Japan. With the exception of minor plantations in the Luchu Islands, Kyushu, and Shikoku, the greater part of the industry is carried on in Formosa where sugar cane thrives abundantly. Beet-root for the production of sugar has not yet been introduced into Japan, but in Manchuria a Japanese company has recently invested 1,500,000 yen in sugar-beet cultivation.

Sugar cane has been cultivated in Japan proper since the year 1600, when it was introduced into the islands of Oshima and Okinawa, where the climate is more or less tropical. Oshima is an island just off the coast of Kagoshima, and Okinawa is one of the Luchu group. In 1730 the plantation of sugar cane was begun in Kagawa in the island of Shikoku, where the first refineries

were also opened. The output from these various centres of cultivation, however, is small compared with the crop in Formosa, which is already the main supplier of sugar to Japan, and may soon rival Java and Queensland, though, as yet, the crop per acre is no more than half what it is in these countries. For many years a striking feature of the sugar industry in Japan was the small quantity raised in comparison with the amount imported. From 1890 to 1894 the percentage imported was as high as 95 per cent. The proportion of imports to domestic production is still considerable, but since most of the imports now come from Formosa the nation's increasing independence of foreign imports of sugar is apparent. The table on the following page will show the relation between production and imports in Japan proper during five recent years, namely, 1911 to 1915, inclusive.

Most of Japan's imports of raw sugar used to come from Java, with smaller quantities from the Philippines, Hongkong, and the United States, but, as will be seen from the table referred to, imports are fast decreasing on account of the abundant supply from Formosa. It is further apparent that Japan's exports of refined sugar increased enormously during the late war, most of the cargo going to China, Manchuria, Korea, and Hongkong.

Up-to-date sugar refining equipment did not appear in Japan until 1895, when the Yaeyama Sugar Refining Company was organised; and this was followed a few months later by the Nippon Sugar Refining Company, and subsequently the Dai Nippon and similar companies were started, the centres of operation being at Kobé, Nagoya, and Yokohama. The crude sugar for these refineries at first came chiefly from Java. The nominal duty on raw material was pu

SUGAR PRODUCTION IN JAPAN PROPER (IN POUNDS)

| YEAR | PRODUCTION IN JAPAN | IMPORTS FROM ABROAD | FROM FORMOSA | TOTAL | EXPORTS | CONSUMPTION IN JAPAN |
|------|------------------------|------------------------|-----------------|---------------|-------------|-------------------------|
| 1911 | 152,800,000 | 175,274,000 | 533,827,000 | 861,901,000 | 102,700,000 | 759,197,000 |
| 1912 | 136,586,000 | 303,095,000 | 335,480,000 | 775,151,000 | 111,180,000 | 653,984,000 |
| 1913 | 146,382,000 | 725,068,000 | 140,377,000 | 1,011,877,000 | 225,117,000 | 786,706,000 |
| 1914 | 182,796,000 | 459,224,000 | 303,712,000 | 944,732,000 | 175,098,000 | 770,635,000 |
| 1915 | 167,880,000 | 276,963,000 | 464,902,000 | 909,748,000 | 156,527,000 | 753,118,000 |

VALUE OF JAPAN'S IMPORTS AND EXPORTS OF SUGAR (IN YEN)

| YEAR | IMPORTS | | EXPORTS |
|------|------------|---------|------------|
| | RAW SUGAR | REFINED | REFINED |
| 1912 | 15,951,023 | 69,682 | 8,477,253 |
| 1913 | 36,548,996 | 203,054 | 15,831,330 |
| 1914 | 21,540,105 | 138,529 | 12,382,809 |
| 1915 | 14,794,102 | 7,992 | 11,803,785 |
| 1916 | 12,956,676 | 21,379 | 16,421,738 |

at 20 4 *sen* per cwt., but as a good rebate was allowed by way of subsidy in view of the conventional tariff on refined sugar, the refineries were in a highly favourable position.

SUGAR PRODUCTION IN FORMOSA

WHEN Japan took over the island of Formosa from China in 1895 the sugar industry was in a sadly neglected condition, as the natives had been allowed to carry on cultivation according to primitive and antiquated methods which ran out the land. The new rulers, finding that sugar plantations yielded a far better profit than rice cultivation, determined not only to make that the staple industry of the country, but to improve the growth and extend the area under cultivation. Owing to the increased yield of rice per acre it was found possible to convert large tracts of paddy fields into sugar plantations, the crops, of course, being raised in proper alternation with others; and it has now become a settled policy of the authorities to devote as small an area of land to rice as is capable of supplying the needs of the population.

As the production of sugar in Japan proper is so meagre compared with the annual consumption, which amounts to over 700,000,000 pounds, great interest is taken in a more intensive and extensive cultivation of cane in Formosa, where the rapidly increasing output is expected soon to render Japan quite independent of foreign imports. With so large a market at her doors Formosa is undoubtedly destined to play an ever more important part in the sugar trade.

Since Japan's introduction of modern methods of cultivation and manufacturing

in Formosa, progress has been very rapid. Erection of the old buffalo type of sugar mill was prohibited and modern machinery instituted, a change amply justified by the results. The new sugar mills established were equipped with the latest machinery from the United States. At first such radical measures of reform naturally provoked a great deal of sharp criticism and some positive opposition from the owners of the native factories, but the natives have gradually come to see that their real interests lie in adopting modern methods. It is not necessary to contend that the new *régime* in sugar production was enforced without some degree of injustice in certain cases, that, perhaps, being unavoidable. But if injustice sometimes crept in, it was chiefly because the Government, in order to hasten the progress of the industry by attracting capital, encouraged the formation of big sugar companies to undertake the growing of cane on a large scale.

Foremost among the Japanese concerns to begin exploitation of the Formosan sugar



IRRIGATION WORKS, TAICHU DISTRICT

plantations was the Taiwan Sugar Refining Company, originally composed of a group of Japanese millionaires, the company being subsequently amalgamated with others. Then a Sugar Guild was organised, which practically controlled the industry like a Trust. This gave rise to serious abuses and consequent criticism. It is, however, the tendency of firms engaged in the same business to combine in this way for mutual profit and protection, in all parts of the world, and this tendency is but illustrative of the slow and silent economic changes that are everywhere modifying social conditions. The Sugar Guild has enabled the planters to unite with regard to trade and thus command a better price for their sugar in the foreign market.

To improve cultivation of the cane the authorities took over absolute control of the industry and introduced new shoots from abroad, with conspicuous success. Lahaina cuttings were found to flourish, and the Rose bamboo from Hawaii also thrives well in Formosa. In 1902 other experiments were made with new species from Java and Australia, and compulsory measures were enforced, as in Java. In 1905 the sugar industry in Formosa was placed under the strict supervision of Government authority and thence for some years every official protection was extended to the enterprise. Sugar production was backed up financially to the extent of 90 per cent of the value of Java sugar imported into Japan. The rate was subsequently reduced to 50 per cent, as the industry attained a prosperity sufficient to dispense with such high protection, and the natives no longer required costly interference to compel proper cultivation and production of cane. Once the profit was apparent the work was enthusiastically supported by the people. The native species of cane has now so declined in favour that no further effort is needed to encourage the cultivation of the better plants.

With this rapid improvement of species has come an extension of areas under cultivation. In 1908 there were 68,645 acres under cane, and of these 28,055 were planted with native varieties, and the remainder with improved and imported canes. By 1910 the total area had increased to 162,108 acres, of which 24,081 were bearing indigenous plants. The yield per acre, too, had increased by about 13 per cent, and there was an improvement of nearly five per cent in the amount of sugar extracted from the cane. The area at present under cultivation is over 281,890 acres, yielding more than 700,000,000 pounds of sugar a year. Of the total production, over 450,000,000 pounds are exported to Japan and the rest used at home or sent abroad. The following table gives the

annual production of sugar in Formosa for five recent years, together with the value of amounts exported for the same period:

shoots from Java, Hawaii, Louisiana, and Cuba and keeping a stock always in the Government nursery of 60 acres, is doing

| YEAR | SUGAR PRODUCED | EXPORTS |
|------|----------------|------------|
| | Pounds | Yen |
| 1912 | 390,108,323 | 1,719,396 |
| 1913 | 155,532,326 | 8 |
| 1914 | 335,038,958 | ..... |
| 1915 | 463,261,864 | 342,292 |
| 1916 | 713,896,437 | 11,317,643 |

The annual production for 1917 is distributed among the various sugar companies operating in Formosa, as follows:

a great deal toward remedying this evil. Japanese sugar is not equal in quality to American sugar, being soft and damp,

| NAME OF COMPANY | POUNDS |
|--|-------------|
| Taiwan Sugar Refining Company..... | 219,970,000 |
| Oriental Sugar Refining Company..... | 145,867,000 |
| Meiji Sugar Refining Company..... | 120,534,000 |
| Ensuiko Sugar Refining Company..... | 122,670,000 |
| Dai Nippon Sugar Refining Company..... | 91,334,000 |
| Taihoku Sugar Refining Company..... | 81,234,000 |
| Niitaka Sugar Refining Company..... | 66,700,000 |
| Rinhongen (Native)..... | 39,300,000 |
| Shinko Sugar Refining Company..... | 13,060,000 |
| Tainan Sugar Refining Company..... | 19,334,000 |
| Taito..... | 3,867,000 |
| <i>Total</i> | 923,870,000 |

Marked as has been the progress of sugar production in Formosa in recent years, it is still far behind the rate reached in Java in some essential particulars. The yield of cane and of centrifugals in Java is yet about three times per area what it is in Formosa, yielding about 1,500 piculs to 450 in Formosa, though the percentage of centrifugals is nearly the same. The difference is due to better irrigation of the cane fields in Java and to a more systematic leaving of the land fallow, whereas in Formosa the land is pushed to its utmost limit of production, and irrigation is inadequate. Wages in Java, too, are only about 6d a day against 10d in Formosa. On the other hand, Formosa has the advantage of improved canes and a protective tariff of Yen 3.10 per picul.

Formosan sugar refineries for centrifugals now number 36, capable of turning out over 27,000 tons a year. These are owned by ten companies, capitalised at over 80,000,000 yen.

Injury from insects and other parasites has already begun to attract the attention of the planters and the authorities in Formosa. The difficulty is believed to arise from degeneration of the root and an abuse of the fertility of the soil. But the Government policy of regularly introducing improved and vigorous

and liable to cake, and also having apparently less sweetening power.

TAIWAN SUGAR MANUFACTURING COMPANY, LIMITED

THIS company, known throughout the Far East as the Taiwan Seito Kabushiki Kaisha, is one of the big enterprises which have sprung from Japan's colonial expansion. It is the leading factor in the sugar industry of Taiwan (Formosa), and from a small beginning, has grown into a huge corporation, absorbing several smaller concerns, and to a very large extent controlling the sugar market of Japan and the Orient. The Taiwan Seito Kabushiki Kaisha was originally formed on December 10, 1900, with a capital of Yen 1,000,000, half of which was paid up. The sugar market in Japan then offered every inducement for such an enterprise, as apart from the small output of some of the southern islands, Japan was entirely dependent on foreign-grown sugar, and necessarily upon foreign sugar companies. Formosa was an ideal sugar country and any Japanese company that could handle the product of that island was almost certain of success in the big market at home. Mr. Tozaburo Suzuki, President of the newly formed company, and Mr. Teijiro Yamamoto, Manager, were sent to Taiwan to inspect the sugar fields in the Provinces of Tainan and Ako, and to inquire into the question of erecting a factory to crush cane. They decided to make a start with a small factory capable of crushing about 250 tons of cane a day, and the work of erection was put in hand. It was the original plan of the promoters of the Taiwan Seito Kabushiki Kaisha



THE TAIWAN SUGAR COMPANY'S AKO MILL, THE LARGEST IN THE JAPANESE EMPIRE, WITH A CAPACITY OF THIRTY-FIVE HUNDRED TONS OF CANE A DAY



ONE OF THE LARGEST STEAM PLOUGHS IN JAPAN, ON THE KOHEKIRIN FARM OF THE TAIWAN SUGAR MANUFACTURING CO., LTD.
(TAIWAN SEITO KABUSHIKI KAISHA)—KOHEKIRIN MILL—CANE STACKS AT THE KOHEKIRIN MILL

to purchase cane from the farmers in the island, but this idea was abandoned as it was found to be more profitable to purchase land and grow the necessary supplies. The new project was put before a large meeting of shareholders held on January 5, 1901, and it was resolved to call up the balance of the capital, *viz.*, Yen 500,000, and devote the money to the purchase of land. Land totalling in area more than a thousand *cho* (approximately 2,450 acres), was then purchased. This land was cleared and planted, but the attempt of the company to provide its own cane was not, at first, satisfactory, owing to seeds of poor quality and the lack of workmen through the prevalence of fever. Furthermore, the company's enterprise was a dangerous one, as the factory was always liable to be attacked by the bandits. After a very difficult initial period, the factory was erected and the production of cane became regular. The cession of the island to Japan as a result of the war with China led to a marked improvement in conditions. In August, 1906, it was decided to increase the capital to Yen 5,000,000, and one factory after the other was erected. The

success achieved by the Tiawan Seito Kabushiki Kaisha directed attention to the profitable nature of sugar production, and one by one other companies came into the field. The Daito Sugar Manufacturing Company was established at Ako, with a capital of Yen 5,000,000, the majority of the shares in the new enterprise being taken up by the shareholders in the Taiwan Company. The amalgamation of the two companies took place in April, 1908, and 9,000 of the shares in the joint stock of Yen 10,000,000 were taken up by the Imperial Household Department. The reorganised concern bought out the Taiwan Sugar Manufacturing Company in August of the following year. Subsequently the English company known as the Formosa Sugar and Development Company, which had a capacity for 850 tons of cane, and Bain & Company's factory of 300 tons, were acquired. Another amalgamation was that of the Kobé Sugar Manufacturing Co., which was bought out in December, 1911, for Yen 950,000. By purchase and amalgamation of these various interests, the Taiwan Sugar Manufacturing Co., Ltd., became the

powerful organisation it is to-day. Eleven years after its formation the company's output reached 1,210,000 piculs. This was not only then sufficient to meet the domestic demand of Japan, but an export trade was entered upon. However, severe storms visited the cane fields of Formosa in 1911 and the following year, and the output of crude sugar was seriously decreased. In July, 1914, the Taiwan Company amalgamated with the Horisha Sugar Manufacturing Co., and in September, 1916, with the Taihoku Sugar Manufacturing Co.

The situation to-day of the Taiwan Sugar Manufacturing Co., Ltd., is that it owns and operates ten factories or mills for the production of crude sugar. These mills are nearly all in southern Formosa; one is in the centre and one in the north of the island. The company's mill at Ako is the largest in the Japanese Empire, and has a capacity of 3,500 tons of cane a day. In addition, there are two alcohol distilleries in the southern part of Taiwan, and two refineries at Kobé, where the crude product is prepared for the domestic and foreign markets. The company actually

owns sugar lands totalling 15,000 *cho*, or about 36,500 acres. It has a railway of its own construction for handling cane, over 400 miles of rail being laid, and in addition there are lighters, launches, and other plant. At present the sugar output of Formosa, besides the native sugar, is about 400,000 tons, produced by twelve companies. The Taiwan Sugar Manufacturing Co., Ltd., alone turns out 120,000 tons per annum, representing about 30 per cent of the total, and it produces half the total of alcohol used in Japan, so that it may well be considered the largest sugar manufacturing concern in the Far East.

The development of the company has necessarily meant frequent and substantial increases in its capital. This has risen from Yen 1,000,000 in 1900 to Yen 29,800,000, divided into 596,000 shares of Yen 50 each. During the year ended March 31, 1917, the gross receipts were Yen 20,995,863 for nine months. The substantial sum of Yen 3,557,000 was written off for depreciation, and the gross profit remained Yen 5,100,806. An ordinary dividend of 12 per cent was paid, followed by two special dividends of eight and three per cent, respectively, the total thus

distributed being Yen 3,552,880. The reserves total Yen 5,159,650. Mr. Shiro Fujita is the Chairman of the Board of Directors. Other members are: Messrs. Teijiro Yamamoto (Senior Managing Director), Tadamichi Takechi (Managing Director), Taro Masuda (Managing Director), and Tamiyoshi Zushi and Jitaro Maruta (Directors). The Auditors are Messrs. Kichibei Murai, Kinsaburo Kada, and Robert W. Irwin, Jr. Mr. Takashi Masuda is adviser to the company. The sale of the products of the Taiwan Sugar Manufacturing Co., Ltd., is in the hands of the Mitsui Bussan Kabushiki Kaisha as sole agent. Enquiries regarding the Taiwan Sugar Manufacturing Co., Ltd., should be directed to their Tokyo head office, 22 Honkoku-cho, Nihonbashi-ku, Tokyo; and if in connection with the sale of sugar or alcohol, to the Mitsui Bussan Kabushiki Kaisha or their branch offices.

THE ORIENTAL SUGAR MANUFACTURING COMPANY

NOTHING has done more for the prosperity and general development of Japan's greatest island colony than big corporations like the

Oriental Sugar Manufacturing Company, whose large investments and intensive industries have been a marked feature of modern progress in Formosa. The island has long been noted for its plantations of sugar cane, but since coming under the *régime* of Japan it has become one of the greatest sugar-producing countries in the world. Situated in about the same latitude as Cuba and Hawaii, the climate is excellently adapted to the cultivation of sugar cane. Even under the rule of China sugar was the most important crop of the island. With the improved methods of cultivation and manufacture introduced by Japan, the annual output of sugar has been enormously increased until now the home demand of the Empire has been almost fully met, imports from Java have been almost stopped, and large quantities of Japanese sugar are being annually exported.

Among the foremost sugar firms in Formosa is the Oriental Sugar Manufacturing Company. Established in 1907 with a capital of 5,000,000 yen, the company at once began planting and cultivating on an extensive scale, turning out some 1,000 tons of sugar



NANSEI FACTORY, FORMOSA, OF THE ORIENTAL SUGAR MANUFACTURING COMPANY



HOKKO FACTORY OF THE ORIENTAL SUGAR MANUFACTURING COMPANY OF FORMOSA

the first year and 2,000 tons the next, a rate it has since pretty well maintained. A year after its organisation the profits of the company were 673,300 yen on an income of over 2,000,000 yen. The superior equipment of the Oriental Sugar Manufacturing Company and its extensive operations enabled it to absorb several of the minor and less efficient sugar companies doing business on the island. The Toroku Sugar Company was taken into the firm in 1914, increasing the capital by 1,200,000 yen, and several other companies followed in 1915. The Hokko Sugar Company, with a capital of 1,500,000 yen, and the Tamaki Sugar Company, possessing a capital of 6,615,000 yen, were absorbed in 1916, bringing the total subscribed capital of the Oriental Sugar Manufacturing Company up to 11,750,000 yen, and the paid-up capital to 7,962,000 yen, with a reserve fund of 2,403,000 yen, the company paying an annual dividend of over 14 per cent.

The Oriental Sugar Manufacturing Company has extensive plantations and large mills equipped with the most up-to-date machinery and is prepared to supply orders for any quantity of sugar. Its plantations are situated in the most favourable portion of the island and promise considerable extension as well as increased crops. The following are the present officers of the company, to whom it owes much of its phenomenal success: Totaro Shimosaka, Esq. (President); Goro Matsukata, Esq., Kusuya Komatsu, Esq., Kenchi Fujita, Esq., Shokuma Matsukata, Esq., Rihei Hyuga, Esq., Retsu Oka, Esq., Shoji Ishikawa, Esq., Toshiro Tamura, Esq. (Directors). The

head office is at Nanseisho, Kagi, Formosa, and the Tokyo office is located at No. 21 Mitsu Bishi Building, Marunouchi, Tokyo

MEIJI SEITO KABUSHIKI KAISHA

THIS company, known under its English title of the Meiji Sugar Manufacturing Co., Ltd., is one of the very active and most efficient of Japanese industrial organisations. The reserve fund of the company was augmented to Yen 7,000,000 within twelve years from its inauguration, against the paid-up capital of Yen 8,925,000, thus increasing its rate of dividend from 12 per cent in 1909 to 26 per cent in 1917. The hands employed, including clerical staffs and labourers, exceed 1,000. It was formally established in December, 1906, by its late President, Mr. Z. Ogawa, who was associated in the organisation of the concern with the present President, Mr. H. Soma, Baron M. Takei, and Messrs. Y. Usui, S. Uemura, and N. Yamamoto, who are members of the present Board of Directors. Besides these gentlemen, Baron E. Shibusawa, Baron I. Morimura, the late Mr. M. Asada, and about twenty other prominent business men in Japan, were concerned in the formation of the new enterprise. All the stock was subscribed by the promoters and their friends, and the general public were not called upon to provide one yen of the initial capital of Yen 5,000,000. The first enterprise of the new company was the manufacture of raw sugar in Formosa, where a factory was opened at Shoro in December, 1908, with a capacity of 750 tons of cane a day. The Santaw factory (with a capacity of 1,000 tons) was established

in November, 1910. The demand for the company's products was so marked that even these new factories were not sufficient for the needs of the market in Japan where the industry was particularly active, and so the Meiji Sugar Company added the Soya factory at Tainan in January, 1912, with an output of 1,000 tons a day. Simultaneously with this rapid expansion of their operations, the directors recognised the necessity for sugar-refining plants, and in January, 1912, an amalgamation was effected with the Yokohama Sugar Refining Co. The capital of the new organisation was increased to Yen 10,000,000, and the refining of raw sugar was begun at the Kawasaki Refinery, Kanagawa Prefecture, which had an output of 200 tons of refined sugar a day. From the inception of the Meiji Sugar Manufacturing Company the directors had before them a steady expansion of the company's operations, in keeping with the development of the sugar industry. They succeeded in July, 1913, in amalgamating the Chuō Sugar Manufacturing Co., at Nanto, Formosa, and thus secured the Nanto Factory with its capacity for 750 tons a day. At the same time the capital was increased to Yen 12,000,000. A big oversea trade was developed at this stage and the Kawasaki Refinery being insufficient to meet demands, the company established the Tobata Refinery in Fukuoka Prefecture, in July, 1916, with a capacity for 100 tons a day. Besides the factories mentioned, the Meiji Sugar Manufacturing Company entered upon the manufacture of by-products and is now turning out at Santaw large quantities of alcohol from molasses. The Kawasaki Refinery is also producing cube sugar and candy, and is being prepared for the manufacture of powdered sugar. The present manufacturing capacity of the factories is as follows: Raw sugar, 3,500 tons a day; refined sugar, 300 tons a day; alcohol, about 280,000 gallons per annum. The company also contemplates extensions in other directions, mainly in the manufacture of confectionery and condensed milk. The following is the present Board of Directors of this company: President, Mr. H. Soma; Managing Directors, Messrs. T. Takagi and K. Arishima; Directors, Messrs. Z. Ogawa, Y. Usui, S. Uemura, Baron M. Takei, Messrs. H. Chiba and S. Tanii; Auditors, Messrs. N. Yamamoto, Y. Kawahara, and K. Morimura. The Tokyo office of the company is at No. 1 Yuraku-cho, Kojimachi-ku, Tokyo.

IMPERIAL SUGAR CO., LIMITED

ALTHOUGH established a little more than seven years, the Teikoku Seito Kabushiki Kaisha, or Imperial Sugar Co., Ltd., now holds a position of first importance in the



IMPERIAL SUGAR CO., LTD.: THE MILL IN FORMOSA—THE REFINERY AT KOBÉ

sugar industry of Japan, its various properties and interests being wide-spread and of considerable value. The founders of the company were Messrs. Kobei Abe, Hidezane Yamashita, and Shokuma Matsukata. At its inception on October 30, 1910, the company had a capital of Yen 5,000,000, but the sum has since been raised to Yen 15,000,000. The company is engaged in all branches of the sugar business, which includes the production of raw sugar, and the processes of refining, and the treatment of by-products such as alcohol, etc. Furthermore, the Imperial Sugar Co., Ltd., is actively associated with the transportation business between Japan proper and Formosa, and by the use of its extensive railways in Formosa, carries on a large traffic with freight and passengers.

The Imperial Sugar Co., Ltd., has five raw sugar mills in Formosa. They are situated as follows: No. 1 and 2 factories at Taichu; No. 3 at Tanshiken, Taichu; No. 4 at Suidensho, Shinchiku, and No. 5 at Sankatutensho, Shinchiku. There are alcohol factories at Taichu and Suidensho,

in the Shinchiku District of Formosa, and a large and well equipped refinery at Higashi-Shirike Village, Hyogo, Kobé. The output for several years past has been as follows:

Shinchiku line has four locomotives and 216 cars. The company also has 10 passenger cars, 16 luggage cars (covered-in), and 4 uncovered cars for the transportation of

| YEAR | RAW SUGAR | REFINED SUGAR | ALCOHOL |
|------|-------------------|----------------|------------|
| 1911 | 112,419.95 piculs | ..... | ..... |
| 1914 | 205,517.00 piculs | ..... | ..... |
| 1915 | 281,984.49 piculs | ..... | ..... |
| 1916 | 610,734.13 piculs | 600,000 piculs | 3,665 koku |
| 1917 | 656,704.00 piculs | 600,000 piculs | 7,000 koku |

The figures for 1917 are estimated on the basis of previous years. The several factories mentioned above have a productive capacity of 2,500 tons of cane a day. The Imperial Sugar Co., Ltd., owns the following railways in connection with its properties in Formosa: 37.4 miles of line for Taichu Factory; 17.1 miles for the Shinchiku Factory, and 1 mile 23 chains for the Tanshiken Factory. The rolling stock employed in connection with the Taichu Factory railway comprises 9 locomotives and 570 freight cars, while the

passengers and general merchandise, luggage, etc. Passenger traffic and general goods conveyance for the public is handled over a distance of 10.3 miles of line between Taichu and Mantoroku, and there is also a service by hand-push railway for a further distance of 27.7 miles. For ocean transport the Imperial Sugar Co., Ltd., has three vessels, one of them being 3,000 tons, and also has under construction two other steamers of handy size.

Following are the principal officers of this enterprising company: Mr. Shokuma



A PRIMITIVE SPADE

Matsukata, President and Managing Director; Mr. Seisa Makiyama, Managing Director, Messrs. Konosuke Abe, Rinnosuke Yamana, Seitaro Yamaguchi, Gunnosuke Sakurai, Tomio Matsuoka, and Tahei Mayekawa, Directors. The head office of the company

is at No. 14 Taichu, Formosa, and the Tokyo branch office is at No. 1. Ginza Shichome, Kyobashi-ku, Tokyo. The Imperial Sugar Co., Ltd., has had a prosperous career, and its future is exceedingly bright. What a substantial concern it is may be gathered from

| ASSETS | | LIABILITIES | |
|---|--------------|---------------------------------|--------------|
| | Yen | | Yen |
| Capital unpaid..... | 2,250,000.00 | Capital paid..... | 7,500,000.00 |
| Ground..... | 968,263.38 | Legal reserve..... | 270,000.00 |
| Buildings..... | 1,168,383.67 | Special reserve..... | 450,000.00 |
| Railways..... | 1,502,769.17 | Employees' pension fund..... | 53,500.00 |
| Ships..... | 2,910,000.00 | Reserve for staff..... | 56,676.53 |
| Machinery..... | 2,928,453.14 | Guarantee money deposited..... | 2,905.70 |
| Furniture and tools..... | 75,523.24 | Drafts payable..... | 6,315,362.80 |
| Cattle in use..... | 6,937.75 | Loans..... | 700,000.00 |
| Works not yet completed..... | 75,752.72 | Money temporarily received..... | 57,014.71 |
| Goods in storage..... | 576,171.38 | Dividends unpaid..... | 1,357.60 |
| Deposit with bank..... | 542,444.79 | Moneys unpaid..... | 231,154.82 |
| Guarantee money for contract..... | 15,337.95 | Taxes unpaid..... | 157,025.68 |
| Money deposited..... | 28,535.00 | Tokyo despatch-office..... | 142,189.13 |
| Securities..... | 8,187.50 | Brought from last period..... | 396,113.06 |
| Drafts received..... | 136,919.32 | Profit during this period..... | 1,413,278.25 |
| Money lent..... | 443,704.85 | | |
| Fertilizers lent..... | 263,046.51 | | |
| Cost of ground to be billed..... | 386,954.64 | | |
| Money temporarily paid..... | 223,677.72 | | |
| Money not yet received..... | 2,071.12 | | |
| Articles shipped out..... | 75,604.00 | | |
| At other stores..... | 210,119.22 | | |
| Manufactured articles..... | 257,055.31 | | |
| Semi-manufactured articles..... | 86,682.00 | | |
| Raw material for refined sugar..... | 610,791.19 | | |
| Agriculture account for next fiscal year..... | 1,202,248.43 | | |
| Cash on hand..... | 10,191.28 | | |

a study of the accompanying balance sheet, for the six months ended September 30, 1917.

The company's profit referred to above was distributed as follows: To legal reserve, Yen 70,000; to special reserve, Yen 100,000; to employees' pension fund, Yen 15,000; to property repayment fund, Yen 200,000; bonus, Yen 100,000; to dividend, Yen 315,000 (12 per annum); to special dividend, Yen 472,500 (18 per annum); carried forward, Yen 437,891.31; total, Yen 1,710,391.31.

THE SUGAR MANUFACTURING CO. OF JAPAN, LTD. (DAI NIPPON SEITO KABUSHIKI KAISHA)

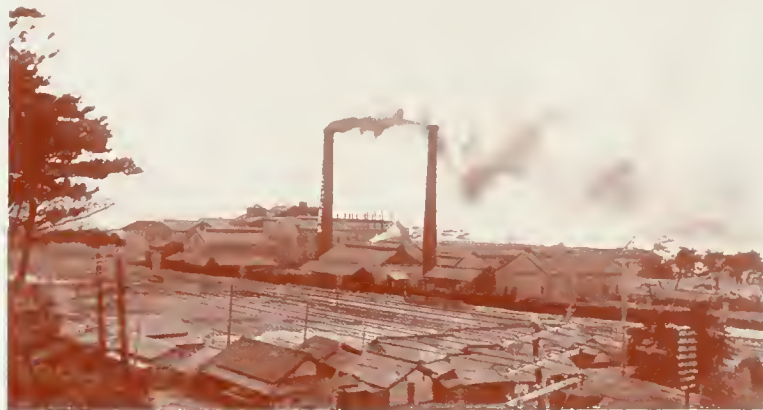
THE company was brought into existence more than twenty-two years ago (January, 1896), under the name of the Nippon Seisito Kabushiki Kaisha, Ltd. (Nippon Refined Sugar Co., Ltd.), with the modest capitalisation of 300,000 yen. This capital, following the gradual extension of business, had soon to be greatly increased, and in November, 1906, when the company was amalgamated with the Nippon Seito Kabushiki Kaisha in Osaka, it commanded a capital of 12,000,000 yen. The company then assumed its present title. In August of the following year, the Dairi Sugar Refinery was purchased by the company, an accession to its properties that gave it the premier position in the trade and securely laid the foundation of the sugar refinery industry in Japan.

In 1908 a raw sugar mill was established in Gokenseki, Kagi Prefecture, Formosa, to which was added a second mill in 1911, this being part of a plan to secure independence in the source of supply of raw material.

When No. 1 and No. 11 refineries, both in Tokyo, and those in Osaka and at Dairi are combined, the company has a daily manufacturing capacity of over 850 tons (estimating day and night shifts of twenty-four hours), in addition to which provision is made for the manufacture of rock candies and alcohol in Tokyo and cube sugar in Osaka. There are two raw sugar mills in Formosa, which turn out 2,200 tons of raw sugar per twenty-four hours. The districts supplying raw materials actually cover an area of over 60,000 *ko* (1 *ko* equals about



FLIGHT OF STONE STEPS AT MAYASAN



THE SUGAR MANUFACTURING CO. OF JAPAN, LTD., DAIRI REFINERY: VIEW SHOWING TRANSPORTATION FACILITIES
BY LAND AND SEA, THE REAR OF THE WORKS AT DAIRI (MOJI)—FRONT VIEW OF THE SAME WORKS



(Upper Row, Left to Right) Mr. H. SOMA, President, Meiji Seito Kabushiki Kaisha — Mr. SHIRO FUJITA, Chairman Board of Directors, Taiwan Seito Kabushiki Kaisha — Mr. S. MATSUKATA, President, Imperial Sugar Co., Ltd. (Lower Row, Left to Right) Mr. TEIJIRO YAMAMOTO, Senior Managing Director, Taiwan Seito Kabushiki Kaisha — Mr. TADAMICHI TAKECHI, Managing Director, Taiwan Seito Kabushiki Kaisha — Mr. TARO MASUDA, Managing Director, Taiwan Seito Kabushiki Kaisha

three acres), of which 2,000 *ko* are sugar cane plantations in the possession of the company. More than one hundred and eleven miles of railways have been constructed in these districts for the exclusive use of the company; indeed, in the vastness of its undertakings and the completeness of its various plants and business organisation, the company ranks amongst the most important in the East. Owing to the superiority of quality, and to the care bestowed upon packing, weighing, etc., the products of the company have secured a wide market both at home and abroad.

The present capital of the company stands at Yen 18,000,000. The following gentlemen form the Board of Directors: Raita Fujiyama, Esq., President (also President of the Tokyo Chamber of Commerce); Managing Directors, Messrs. Nagayuki Takayawa and Yoshitatsu Izawa; Directors, Messrs. Seizo Nakamura, Shaku Hoshino, and Yoshiaki Hamamoto; Auditors, Messrs. Yoshio Sasuda and Naoyoshi Ounabara.

THE SUGAR MANUFACTURING CO. OF JAPAN, DAIRI REFINERY (DAI NIPPON SEITO KABUSHIKI KAISHA, DAIRI KOJO)

THE Dairi refinery referred to in the preceding notice is one of the most important installations of the kind in Japan. A few details about it will therefore be of interest.

The refinery covers the unusually large area of 35,000 *tsubo* and is located on the shores of the Inland Sea within about ten minutes' electric car ride of the port of Moji. The buildings will be seen from the accompanying illustrations to be of a most imposing description, and include, besides the main works, twenty-five godowns ranged along the shore to facilitate shipments. Water is supplied for the use of the refinery from a private reservoir which has a superficies of 5,870 *tsubo*.

With regard to the installations, it is interesting to note that the major portion of the machines bear the name plates of well known European and American engineers. Power is derived from two powerful

steam engines supplied by Harvie & Co., with Babcock & Wilcox boilers, two General Electric Company dynamos, and four electric motors.

The raw material is imported from Java, Manila, and Cuba, and the product in refined sugar is exported to China, the South Sea islands, India, and Russia, through the medium of the following well known firms, the specially appointed agents of the company: Mitsui Bussan Kaisha, Suzuki Shoten, Yuasa Shoten, Fukuwaya Co., Okura Gumi, and Abe Shoten.

The refinery, which gives employment to 250 labourers and 50 clerks, has a daily capacity of 350 tons. The annual production at present amounts to 1,274,000 piculs, valued at Yen 17,090,400, of which China consumes the greater part, the company having paid special attention to the requirements of that market.

The General Manager of the refinery is Mr. Konosuke Akiyama, who has been with the company for a number of years.



JAPAN'S COLONIAL EMPIRE

LIII. KARAFUTO (JAPANESE SAGHALIEN)

HISTORY—AREA, PHYSICAL FEATURES, AND POPULATION—COMMERCE AND INDUSTRY—
COMMUNICATIONS—ADMINISTRATION AND FINANCE

KARAFUTO, Japan's northernmost colony, forms the southern half of the island of Saghalien below the fiftieth degree of latitude. When this portion of the island was ceded to Japan by Russia at the Portsmouth Peace Conference in 1905, Japan, it is said, desired the international boundary to be placed along the fiftieth parallel of latitude because the cherry does not bloom north of that limit. The name *Karafuto* means "land at the extremity of China," and signifies that when first known to the Japanese they supposed it to be part of the Chinese mainland.

HISTORY

THE history of Saghalien is too remote for present investigation, but there is frequent mention of it in Chinese and Japanese documents of the seventeenth century. As early as 1651 a Japanese expedition touched at the island and made a map of the southern portion. A second expedition under a samurai named Wada visited the island in 1764, and another one under Niida, in 1785, which indicates the interest then taken in the place by the Japanese. As already mentioned, the fact that from the beginning the Japanese called it *Karafuto* shows that

they mistook it for a peninsula jutting from the Chinese littoral, an idea that even in Europe prevailed down to the eighteenth century, when La Perouse determined its insular character, having circumnavigated the island in 1787. Although the Japanese supposed it to belong to China they always regarded it as rightly a part of their own Empire, the ancient policy of the country being to gain control of all frontiers. Consequently, expeditions were constantly despatched to the island by the Japanese authorities with the hope of supplanting China. Under the auspices of the Tokugawa shogunate a party was organised for the exploration of Saghalien in 1785, led by a gentleman named Matsudaira, a dignitary of Yedo, and this expedition was followed by another in 1789 and by still others in 1801 and 1808. By this time, however, the Russians had come upon the scene, with consequent bitter rivalry between the two races.

From 1807 onward Russia began to establish a penal colony on the island, and in 1853 she built Fort Dui for the protection of her fur hunters there. This aroused the Japanese to action, and in 1855 the Yedo government decided to take direct control of Saghalien. In 1868 Kanosuké Okamoto

was appointed governor of the island, and he went over to the town of Odomari and opened an office there for the administration of the territory. Subsequently, however, it was decided to administer the affairs of the island from the Government Office in Hokkaido. The Japanese settlements in Karafuto at this time were chiefly engaged in exploiting the fisheries and to some extent the agriculture of the place, with steady increase of settlement and occupation towards the south. As large deposits of coal were discovered in the interior of the island, the interest of both countries increased to apprehension, and Russia began to oppose the Japanese settlements, with constant quarrels between the rival races. This was intolerable to Japan, and so in 1863 the Japanese embassy sent to Europe was charged with a mission to Russia to negotiate concerning the boundary question in Saghalien. Russia was willing to allow Japan's occupation of the southern part of the island provided the boundary was delimited to the forty-eighth degree of latitude, but Japan insisted on the fiftieth being named. It was agreed to leave the adjustment of the question to a further conference the following year, but the outbreak of civil war in Japan prevented

the shogun fulfilling the agreement. Vice-Admiral Enomoto was despatched on a special mission to Russia in 1874 to settle the boundary question respecting Saghalien, but his efforts were in vain. In 1875 Russia suddenly assumed possession of the whole island, offering Japan the Kuriles in return for her interest. Japan was not at that time prepared to resist the proposal, as she had no navy worth speaking of. Thus the question was allowed to stand until the war with Russia, in 1904, when Japan again occupied Saghalien and finally succeeded in retaining the southern portion, extending some 295 miles north, according to the terms of the treaty of Portsmouth. The work of delimiting the international boundary was completed in 1907 by delegates representing Japan and Russia.

AREA, PHYSICAL FEATURES, AND POPULATION

A LONG narrow island bordering the eastern shores of the Russian littoral, Saghalien is some 630 miles in length from north to south, its least width being 17 miles and its greatest 93 miles. The total area of the island is about 29,100 square miles, with some 99 villages and 4,715 settlements. The Japanese portion of the island, however, comprises only 13,254 square miles of area, the territory lying between $141^{\circ} 51'$ and $144^{\circ} 55'$ East Longitude; and extending $45^{\circ} 54'$ to $50^{\circ} 0'$ North Latitude. The eastern coast is washed by the Sea of Okhotsk, and the western coast faces Siberia, from which it is separated by a narrow strait. The southern extremity of the island forks into two arms embracing the Bay of Aniwa, the points being separated from Hokkaido by the Soya Strait, 46 miles across.

The portion of the island occupied by Japan is comparatively level. Two ranges of mountains extend north and south, but the greatest elevation, near the northern international boundary, does not exceed 4,000 feet above sea level. Between the two ranges lies a low plain, through which slowly flow the rivers Horonai, Naibuchi, Suzuya, and Rutaka. Karafuto is popularly supposed to be a land of snow and ice, but this is by no means the case, even in winter, for the climate is not uniform owing to geographical position and ocean currents. The average annual temperature is about 38° F. at Mauka, and 29° F. at Shikita. The minimum in January falls to 40° F. below zero, while the maximum rises to 91° F. in August. The flora and fauna of the island are remarkably rich. The central zone of the mountain slopes is covered with a fine growth of coniferous timber, while the still more elevated regions are clothed in season

with splendid Alpine flora. The most important trees are pine, larch, and birch but there are many others. According to the official survey completed in 1910, the forest area covers nearly 8,000,000 acres, of which some 5,000,000 acres are given to coniferous trees, rich in excellent timber and material for wood pulp. Of the mineral resources of Karafuto the most important is coal, found in abundance in a series of seams from two to five feet thick generally but in some places reaching a thickness of fifty feet. The coal is of excellent quality, like the Hokkaido coal, with very little sulphur and yielding 60 per cent coke, as well as giving very little ash. Alluvial gold has also been discovered in promising quantities along the river beds, especially in those descending from the highlands of Tohoku and Shiretoko. Iron pyrites is found in large quantities in the Notoro Peninsula, while oil wells have been found in the neighbourhood of Tokombo and Arakoi, on the western coast, as well as at Aushi and Notasamu, where the petroleum deposits cover an extensive area. Prospecting for gold, silver, and copper ores is being steadily carried on by influential firms engaged in the mining industry, and there is every reason to expect important developments in this direction. The principal coal regions are around Horonai, Seitonai, Naibuchi, Tomariori, Fusetaki, Notoro, and Shiretoko, some mines covering an area of sixty miles. Amber has been found along the east coast. The fisheries have so far been looked upon as the greatest resources of Japan's most northerly colony, as they have been more exploited and the financial returns have been more direct, but the mineral and agricultural resources of the island are equally great if properly developed, to say nothing of the forest resources which seem almost inexhaustible.

The development of agriculture depends chiefly on population. The population of Karafuto as yet is not large, being no more than 51,730 in all. During a busy fishing season it rises to a much higher number, declining to the normal again after the summer is over. Of the total population, some 3,000 are Gilyaks, with 800 Orotshones, 2,200 Ainu, and 100 Tunguses. With the increase of colonisation the aborigines are gradually dwindling, chiefly on account of inebriety, some villages having literally drunk themselves to death. The rest of the population is made up of Japanese, Koreans, Chinese, and Russians, the Japanese largely predominating, with a total of over 44,000. The large number of Russians who formerly inhabited the southern part of the island, removed after its cession to Japan, only those too poor to remove remaining. The Japa-

nese government has been using every inducement to promote a rapid colonisation of the island, but the process is still very slow. Owing to the natural dread of cold which every Japanese has, immigration is small. Before Russia assumed possession of the whole island in 1875, the Japanese colony in the south numbered some 480 persons, most of whom departed with the Russian occupation. Russia turned the island into a penal settlement, allowing the convicts to take up land and intermarry, and by this means a considerable portion of the arable land was brought under cultivation. The convicts usually tried to escape to Siberia with every opportunity, and consequently the settlements did not steadily increase. On the island being restored to Japan, the Imperial Government made careful investigation as to the best means of promoting colonisation, and a definite system of encouragement was adopted, especially with a view to development of agriculture. Extensive areas of land were opened up for settlement at low rent and under official encouragement and protection. Yet the number of families induced to migrate to the colony has not been more than six or seven hundred annually since 1906, or about 17,000 in all, cultivating about 12,000 acres out of nearly a million available. Considerable numbers of these, however, engage in fishing and trade. There is no reason why the island should not become a great agricultural country if properly settled. Barley, rye, wheat, oats and other northern cereals grow well, to say nothing of all kinds of vegetables, while experiments in fruit-growing have been very satisfactory. The country abounds in wild berries and other fruits of various kinds, including nuts. Moreover, the possibilities of stock-farming are infinite. The total output of grains and vegetables so far, however, does not amount in value to more than 500,000 yen a year.

COMMERCE AND INDUSTRY

ALTHOUGH the commerce and industry of Karafuto are still in a nascent state the possibilities of development are great. The experimental stations and other organisations established by the Government for the promotion of industry and the general development of the rich natural resources of the island, together with a steady improvement in communications, are doing much for the extension of industry and trade. During the winter season, when communication with the rest of the Empire is interrupted for three months, trade is necessarily inactive and business generally dull. But the volume of trade multiplies in proportion to the progress of colonisation and the development of industry. Imports now total about

5,000,000 yen a year in value, and exports some 4,000,000. Imports consist mainly of rice, salt, tobacco, matting, oats, kerosene, bean paste, and *saké*, while the principal exports are herring, timber, fish guano, canned crab and sardines, and dried cod. After the opening of navigation in April and May comes the busiest trade season, and preparation for winter leads to a further revival of trade in the months of September and October.

The fisheries are still by far the most important industries of the island. Special licenses for seine fishing are issued for exclusive grounds to those agreeing to carry on the industry for a certain number of years, while other licenses are allotted by tender. Special license grounds number 40 on the east coast and 14 on the west coast, and those open to bidders number 870 on the east and 433 on the west. For the protection of breeding certain waters are closed to fishing. The principal varieties of fish are herring, cod, salmon, sardine, trout, and flat fish. Next in importance to the herring fisheries come those of trout and salmon, the means adopted being for the most part stationary nets. Hitherto most of the herring catch was made into fertilizer, but recently the Government has introduced the salted-herring industry. A Government experimental fishery station has been established on the western coast, where everything in relation to the industry can be learned. The rapid development of the tinned crab industry in recent years is especially significant. Whales abound along the coasts of the island and the industry is also undergoing steady development, the catch being about sixty annually. Ten miles off the coast lies the famous Seal Island, where vast herds of fur seals breed. A Government agent always remains on the island for the protection of the seals, which at present must not be exploited.

Industries in forest products are also making rapid development. Four big saw mills with Western machinery are turning out great quantities of all kinds of lumber, but the development as yet does not at all approach the possibilities. A Government factory was opened in 1911 for utilising the broad-leaved trees, and now produces charcoal, calcium acetate, wood tar, and methyl by the Mayer distillation machines, the white birch being the chief material. Great pulp mills have also been erected and are meeting the immense demand created for this material by the European war. The Mitsui Bussan Kaisha's plant, erected at a cost of more than 1,000,000 yen, turns out 20,000,000 pounds of pulp a year. The Okawa pulp mill expects to produce an equal

annual turnout. Resources in turpentine oil and resin are also immense. Forest resources in furs are large, the principal animals being sable, otter, fox, bear, reindeer, musk deer, squirrel, sea lion, seal, and rabbit. Some 5,000 skins are taken annually, amounting in value to about 50,000 yen.

COMMUNICATIONS

THE first railways constructed in Karafuto were temporary light tracks for military purposes, running twenty-six miles between Otomari and Toyohara and built in 1906. With the abolition of military government in 1907, this line was thrown open to general traffic, and subsequently branches were built. The increasing traffic, as well as the importance of having a regular railway, caused the authorities to reconstruct the line in 1910, making the gauge 3 feet 6 inches, the same as the railways in Japan proper. Karafuto now has a line of 57 miles and 58 chains running between the two most important towns of the colony and touching some of the more important settlements and mines. The rolling stock comprises 6 modern locomotives, 70 cars with a capacity of 48,600 tons, together with 18 passenger coaches capable of carrying 484 persons.

In shipping, Karafuto has a coasting service as well as a regular line between the colony and Japan proper. One line of coasting steamers serves the east shore and another the west shore, both lines being owned by one company, which receives an annual subsidy from the Government. The steamers used are not above 150 tons. The line running to Japan also receives a subsidy from the Government. They belong to the Nippon Yusen Kaisha and maintain a regular service between the island and Japan. There are numerous other steamers plying between Japan and the island ports, carrying freight and especially coal and timber. The annual number of ships entering the ports of Karafuto is over 2,000, representing a total tonnage of over 1,000,000.

When Japan took over the island there was but one road, which connected Otomari and Toyohara, but the Government has opened up several important new roads since, the one between Toyohara and Mauka over the western mountain range making communication by sledge possible even in winter. Minor roads leading to important towns and villages have also been opened, with numerous bridges where formerly there were none. Toyohara, called Vladimirovsk under the Russian *régime*, is the capital, with a population of about 8,000, and situated on the Suyuza plain about twenty-five miles north of Otomari, surrounded by some of the most promising districts for colonisa-

tion. At this town are the principal offices of the Karafuto Administration, and roads branch off to all the more important surrounding districts and villages. Here also are the headquarters of the Karafuto garrison, the local courts, hospital, and post office, as well as the prison. Mauka on the west coast has been an important fishing station ever since the Russian occupation. There are other rising towns in the vicinity, especially Kitanoyoshi and Shikiki. Otomari is the most important town in the south. None of the towns have very good harbours but safe anchorage is possible.

Post and telegraph offices have been established at all the important towns and villages, and extensions are steadily going on. The first postal service was that of the military field system, the ordinary mail service being opened in 1906. Telegraph service is available at all post offices, as in Japan proper. Telephones have been introduced into the principal towns only, some 289 already being installed, with numerous unfulfilled applications for more. There are thirty-four post and telegraph offices in all, and cable communication with Japan and Russia.

ADMINISTRATION AND FINANCE

WHEN Japan forcibly assumed occupation of Saghalien in 1905 the administration was established on a military basis with the head office at Otomari, then called Karsakov. The only purpose of the administration at that time was to secure protection for the troops and peace and order among the inhabitants. General Nambu, as chief in command of the army of occupation, was appointed Military Governor, and assumed the responsibilities of civil administration until a regular civil Administration Office was opened in April, 1907. The Governor of Karafuto acts under the Minister of Home Affairs in Tokyo, and has under supervision the posts, telegraphs, customs, banking, and judiciary of the colony. He has under him a large staff of minor officials to look after the various departments of his administration. In addition to the head office of the Administration there are branch offices at Otomari and Mauka, each with its chief and a staff of assistants. Courts have been established for the enforcement of the laws of the Empire, special deference being made to certain local customs as far as seems desirable.

The expenses of the military administration of Karafuto were defrayed from the special account for extraordinary military outlay, and from a local fund comprising sundry receipts under the military occupation. With the establishment of a regular civil administration in 1906 revenue and

expenditure were brought under the jurisdiction of the Department of Home Affairs. To enhance the deficient revenue of the colony a fixed grant was made annually from the National Treasury, supplemented by taxes and imposts, the taxes being chiefly on houses and business and in no case heavy. The accompanying table represents the revenue and expenditure of the colony for the year 1917.

Schools have been established to the number of 99, of which 4 are public and the rest private, with some 8,000 pupils in attendance.

| REVENUE | | EXPENDITURE | |
|--------------------------------|-----------|---------------------------------|-----------|
| Ordinary: | Yen | Ordinary: | Yen |
| Taxes..... | 193,098 | Administration of Karafuto..... | 1,187,642 |
| Public undertakings, etc..... | 793,505 | Reserve fund..... | 30,000 |
| Licenses and fees..... | 562,903 | Other expenses..... | 8,000 |
| Stamp receipts..... | 62,510 | | |
| Miscellaneous receipts..... | 14,694 | | |
| Extraordinary: | | Extraordinary: | |
| Sales of State property..... | 179,696 | Expenses of State management.. | 73,220 |
| National Treasury Grant..... | 293,575 | Building and engineering..... | 310,544 |
| Surplus of preceding year..... | 113,415 | Colonisation..... | 409,153 |
| Miscellaneous receipts..... | 5,163 | Special undertakings..... | 200,000 |
| <i>Total</i> | 2,218,559 | <i>Total</i> | 2,218,559 |





A DRINKING BOUT IN AN AINU VILLAGE

LIV. THE AINU

By the Venerable Archdeacon JOHN BATCHELOR

THE race of people now to be found only in Hokkaido and Saghalien and which knows itself by the designation *Ainu*, is not so well known among the nations of the earth as many other families of men. This is by no means because nothing has been written about them, for, indeed, hundreds of books and pamphlets dealing with them are in existence. The vast majority of these, however, are in the Japanese language and therefore sealed to the general European and American reader, while others are in Russian and some in French, English, and German. Chamberlain, in the first volume of the "Memoirs of the Imperial University of Japan," gives a list of 465 such publications, while, since that volume was published in the year 1887, many other works have appeared. If, therefore, little is generally known of this interesting and now fast disappearing people, "the reason must be sought," as Chamberlain so well puts it, "in the remoteness of the subject from topics of general interest," rather than elsewhere.

I have by me an extraordinary book written by Mr. A. H. Savage Landor entitled "Alone with the Hairy Ainu," and published

in 1893. I was away in England for a rest when Mr. Landor came to be *alone* with his "hairy" ones, and so missed the honour of meeting him. He occupied my little room, nine feet by six, built in the northeast corner of Chief Penri's hut, while he was at Piratori, and Penri and others had a good deal to tell me about him when I returned the following year. After a very long experience among this people I feel bound to remark that I have never seen a more imaginative and distorted account of this race than is recorded in that book. I read and translated parts of it to the Ainu themselves and showed them their pictures. After hearing and seeing, the old men gravely remarked, "Whatever Ainu can he be describing? His Ainu evidently do not belong to Yezo!" They were greatly interested and roared with laughter at the splendid caricatures in the book. On account of Mr. Landor's undoubtedly great artistic gifts Penri spoke of him as the "Demon" (*Nitne Kamui*), but whether by way of compliment or in disapprobation I was unable to discover. Chief Penri died in 1910 at the age of eighty-five years. The accompanying portrait of him was made thirty-five years ago. He dressed in Japanese clothing for the occasion.

When he died, being the old man of the family, his house was duly burnt down according to Ainu superstition and custom, and my



THE VENERABLE ARCHDEACON JOHN BATCHELOR, AFTER FORTY YEARS AMONG THE AINU



CHIEF PENRI

own room also went up in smoke with it! Like many other old customs I found in vogue among the Ainu forty years ago, this one also has now practically died out.

Penri was a fine man and full of humour. I always stayed with him when in Piratori and he accompanied me with pleasure in most of my journeys among his people. He was my first teacher of the Ainu language. He was very fond of Japanese *saké*, as, indeed, nearly all the Ainu are. He was not a native of Piratori nor was he the real Ainu chief. He came from Shum-un-kot and was appointed head of Piratori by the Japanese authorities. He formerly had several wives, one of whom attempted to commit suicide. I am afraid his family relations were not of the happiest nature. He was very self-righteous and he told me he expected to have a very high position in heaven when he got there! He had no confession to make of sin or wrongdoing, and had no thought of seeking pardon from his gods.

Among modern books on Ainu matters I should recommend for light reading, Miss Isabella Bird's "Unbeaten Tracts in Japan" (1885); "Life with Trans-Siberian Savages," by B. Douglas Howard, M. A. (1893); "The Ainu Group at the St. Louis Exposition" (1904), by Professor Frederick Starr; and for a very full account of the people in every department of their life I must recommend my own books, but especially that on "The Ainu and Their Folk-lore" (1901). Many references are made to the Ainu by Dr. Neil Gordon Munro in his "Prehistoric Japan" (1908), a book which I heartily recommend to all students of ancient Japan.

The Ainu of forty years ago were in some respects superior to those of the present day. Their love for strong drink has ruined them. Had they been protected by prohibition, say forty or fifty years ago, the race would have been by now as great an asset to this Empire as the Maoris of New Zealand are to the British Empire, and had they been allowed the same all-round advantages as regards education that the Japanese have, they would have been as great an ornament. On the preceding page the reader may see the Ainu at a drinking bout, the men seated in front and the women behind, the latter receiving just so much of the drink as their lords think fit to spare them. The crowns the men wear are not regal, but, like the dresses, ceremonial. It is quite likely, too, that the carved heads on the crowns have a totemistic import. It will be seen that the old swords are of a northern, or Manchurian, type. The man standing has a foreign hat, the mat is Ainu, and the tubs are of Japanese lacquer. The men sit cross-legged, but the women sit upon the knees.

The name *Ainu*, by which this race knows itself, is still applied to themselves only. A Japanese is called *Shisam*, while a European or American is called *Fure-Shisam*. *Ainu*



AN AINU DOG

is derived from a word meaning "think," so that *Ainu* is "thinker." It is also of interest to note that the word *ramat*, "soul," has the root meaning of "mind," "intellect." For many years the Ainu have been called by their smoother-skinned Japanese neighbours, *Aino*, which is wrongly said to be a corruption of *Ai-no-ko*, Japanese for "children of the middle" or "bred-between," that is to say, bred from man and beast. Some Japanese say the name *Ainu* is just *Inu*, which means "dog" in Japanese. The Ainu themselves, however, think their ancestors were descended from one named Aioina, whoever he may have been, whose name is sometimes heard in prayer. Further than this we are unable to go at present, for the Ainu have no literature to help us and Japanese works shed no light on the matter, while the present-day Ainu are utterly unreliable on ancient customs and lore.

That the Ainu were in Japan many years before the Japanese arrived here is well attested by the oldest Japanese books, namely, the *Kojiki* or Records of Ancient Matters (712 A. D.), and the *Nihongi* or Chronicles of Japan (720 A. D.). The Records speak of them as *tsuchi-gumo*, "earth-spiders,"



AN AINU VILLAGE — CHIEF PENRI'S HUT



AINU FRIENDS OF THE LAST GENERATION

but this designation is really a simple corruption of the Ainu word *toche-guru*, which means nothing but "earth-house-people," "pit-dwellers." That the Ainu formerly lived in pits is a well known fact. There are grounds for believing, as Dr. Munro so clearly shows, that there were other "pit" or "cave dwellers" in this Empire besides the Ainu. Certain it is that the Ainu were not the only inhabitants in Japan prior to the Japanese, for we are expressly told that when the First Emperor, Jimmu Tenno Sama, arrived in this Empire he encountered various "barbarian tribes, the most fierce of whom were the Ainu." Some would have us believe that prior to the Ainu there was, particularly in Yezo, a race of dwarfs inhabiting the island, who were called *Koropok-guru*. But that they were dwarfs is not proven,—there is no evidence at all. *Koropok-guru* means "people-

below," "below" referring to locality. It is equivalent to "pit-dwellers," and the pit-dwellers were Ainu, and they can not be called dwarfs. The place names are Ainu, and the exhumed bones and flint implements and pottery are Ainu also.

Although the oldest books speak of the Ainu as *Tsuchi-gumo*, yet later Japanese publications call them *Ebisu* and *Emishi*, but these only mean "barbarians." In olden times they were a very warlike people, though they are mild and gentle enough now. The Ancient Records tell of the massacre of eighty of their chiefs while sitting at a feast to which they had been invited. In the north of Japan there may be seen many barrows, or mounds, containing great heaps of the bones of Ainu slain in battle. It was not till after 855 A. D., when the Ainu were much weakened by internecine strife, that they were eventually subdued. Indeed, the year 878 A. D. is given as the year of their final subjugation. Though formerly very numerous the Ainu now number but 18,674 souls, 9,019 being males and 9,655 females. In 1876 they numbered 19,456 in Hokkaido (Yezo), and about 2,000 in Saghalien. Many of those now registered as Ainu are pure Japanese, while the half-breeds are very numerous. It may now, indeed, practically be said that the race, as Ainu, does not exist. The Ainu do not bear many children and, to keep up the families, they adopt Japanese babies and register them as Ainu. I know of one Ainu school where quite one-third of the scholars, though called Ainu and counted as such, are pure Japanese children. Thus are their numbers kept up. In some places there is a great deal of consumption among them and this dire disease carries off many.

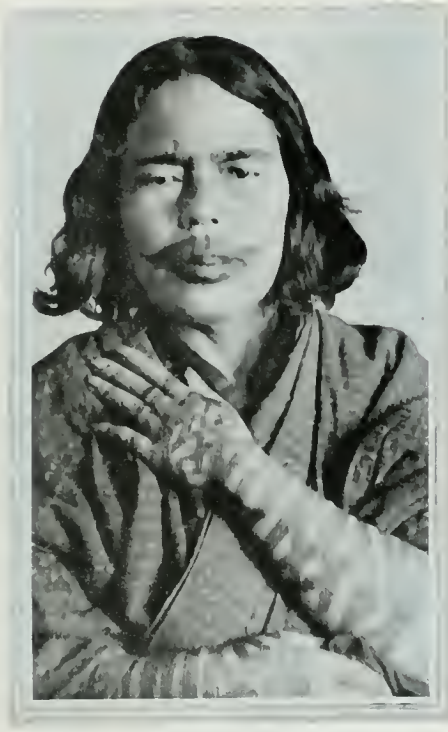
The Ainu have been called "dull" and "stupid." Certainly they have not had the advantages of travel and education and competition that many other races have had to make them sharp. It is evident also that the Japanese consider them to be lacking in brain power. Indeed, an order has gone forth that Ainu children shall enter school at an age one year older than Japanese children and remain at school only four years instead of six! It is evidently the opinion of the Japanese educational authorities that the Ainu are weak in intellect. Still, we have had good results from those whom we ourselves have sent to school in Sapporo and Tokyo, and we see no lack of brain power in such.

The Ainu were once widely distributed, geographical nomenclature showing clearly that they were formerly scattered throughout the whole of Japan. Thus, for example, the name *Fuji* (in Mount Fuji) is the Ainu name for "fire" when being worshipped, though



WOMEN POUNDING MILLET—AINU MAN AND WOMAN. THE ORNAMENTS WORN BY THE WOMAN ARE OF MANCHURIAN ORIGIN

when spoken of generally "fire" is always *abe*. *Fuji* is the goddess of fire, and *Fuji no Yama* is "dormant volcano." *Noto* is really "Cape Blunt," *Musashi* is "Surf-place," and so on *ad infinitum*. There are also Ainu names of places in Siberia, as *Tomsk* and *Enise* and *Kota* testify. We are also informed that there are grounds for the belief that the present-day Ainu are connected with the ancient cave dwellers of Europe. The ground for this idea is the fact that the conical shaped skull and flattened tibia are identical. The Ainu language is of an Aryan type both as regards vocabulary and grammar. Pildzusi tells us that the Ainu spoken in Saghalien is of an older type than that current in Yezo, thus indicating that the Ainu came from the north. Some of the idioms of the language also show a northern rather than a southern habitat



A WELL TATTOOED WOMAN

When I first came to live with the Ainu the thing which impressed me most was their abundant black hair, carefully parted in the middle and falling in tresses to the shoulders where it was cut in a crescent shape behind. The people love wavy, curly hair and call it *Kamui otot*, "the hair of the gods." But now the men cut their hair and the younger women follow the Japanese custom of allowing theirs to grow. Some have hair reaching to the waist, others to the knees, while a few have it so long that when let down it touches the ground. There are several superstitions connected with the hair. Formerly to cut the hair too short meant shortening one's life; to allow another to get any of it meant bewitching; to bury the hair of another person meant to kill him by degrees. The men remind one much of the Russian Mujik. Though as a rule quite hairy, there are many among the men who have very little hair on the breast, arms, and legs.

The most remarkable thing which struck me about the women was the tattooed lips, hands, and arms, and, in some instances, the forehead as well. It is said to be a very ancient habit and no one can now tell us about the origin of the custom. Its old name was *Anchi-piri*, "black-stone marks," the "black-stone" being either coal or obsidian, and this takes us back to the stone age, which is not so far away. It is now done with Japanese knives. The process is begun when a child is about five years of age and is not finished till she is either married or betrothed. It is bluish-black, to get which

colour soot which has collected on the bottom of a pot is rubbed into the cut place which is afterwards washed with a dye obtained by steeping the bark of a tree in hot water. The tattoo may be regarded as a kind of wedding ring. The custom has now been forbidden by the authorities. The colour of the eyes varies. In some it is black, in others grey, and in others nut-brown. The voice of the women is soft and musical excepting when angry. I have always found them kind and courteous, and so honest that during all the years I have been among them I have never lost anything. They eat of the same food as the men and at the same time, and laugh and chat meanwhile. The women rise early and go early to bed. They do all the household work, cook, make cloth, sew, pound the millet, draw the water, and so forth. And, withal, they are very happy when their spouses are not drinking.

The clothes I found the Ainu wearing were made chiefly from the inner bark of elms and the skins of such animals as deer, bears, dogs, foxes, and racoons. The process of weaving cloth from elm bark was a long one, and very little, indeed, is made now, Japanese material having superseded it. Some of the fibre was steeped in a decoction of bark to make it last longer and withstand the wet weather better. This gave it a brown or buff colour. They also wore leggings made of fur, and boots made out of salmon and other skins.

The Ainu were formerly fish and meat eaters and cultivated very small patches of ground. Each family catered for itself and had its own plot for millet, peas, beans,



WOMEN AND GIRL CARRYING WOOD — WOMAN WEAVING CLOTH



AN EMBROIDERED DRESS SUCH AS IS WORN BY THE AINU PEOPLE

potatoes, cabbages, pumpkins and other vegetables. These were stored in the family storehouse. Flesh and fish were hung up in the roof, where they got well smoked. The women were usually very happy while pounding their millet and sometimes three or four would join in this work and have a good time. The girls were kept very busy nursing the babies, which they carried slung from the forehead and resting on the back, in drawing water, working in the gardens, or fetching wood.

Ainu dwellings are not very large and may be distinguished from Japanese houses by the thatch on the roof, which consists of several layers of straw so superimposed as to form a series of ridges. They are not at all warm in the winter as the cold wind rushes through the reed walls at a great rate when it blows. It is also very trying to one's eyes to stay in them as there are no chimneys to carry off the smoke. Among the mountain Ainu of Yezo the villages consisted of a row of huts on one side of the path and a row of small family storehouses on the other. The Saghalien Ainu were more communal and had their common village storehouses for grain, fish, and flesh. Both Yezo and Saghalien Ainu produced fire by friction.

It is a fact that the Ainu have no temples yet it is also eminently true that they are a very religious people. They are also obsessed by that disease of religion which we term superstition. In one illustration may be seen a sieve and sickle set up on high. These are so set up as fetiches and are used to persuade the gods to send fine weather after too much rain. The east end of every hut, —and there one may see numerous shavings



AN AINU STOREHOUSE—A SIEVE AND A REAP-
ING HOOK SET UP AS FETICHES TO
CALL FORTH FAIR WEATHER

and fetiches set up, both inside and out,—
is the family temple, and every Ainu man is

the priest of his household. The men alone perform most of the worship, and the women are sent with libations as offerings to the ancestors. The people have a strong belief in a future life where each person is to receive either reward or punishment according to the deeds done in the body here on earth. The wands shown in another illustration of the eastern end of a hut are called *Inao*, which means "message-bearers." Prayer is said before them, libations are poured out to them, and they are then sent with messages, some to heaven and some to hell, as the case may be. They are not gods but messengers.

When I first went among them I found that the Ainu ideas concerning death were purely animistic in nature. Thus, according to them, the dead did not die entirely, that is to say, as soon as the breath was out of the body, but their spiritual entity continued in this world, particularly about the grave and the former home, for quite a long time after the event we term death had taken place. For so long a time as there was a single atom of the material body remaining undissolved, there was supposed to be a perfectly intelligent and personal particle of the anima hovering round and in it, in the process of escape. And this was not only capable of locomotion, but of exercising a direct influence upon the living for good or ill. Thus it came about that when I once ventured too near a grave I had to be purified by having water sprinkled over my person and to submit to a brushing down with spray wood. Although these disincarnated spirits were eventually supposed to take their departure hence, yet they were also supposed to return to earth at times. Moreover, when they left the body they were thought to possess more knowledge,



CELEBRATION OF A BEAR FESTIVAL IN AN
AINU VILLAGE

more power, and far mightier faculties than when in the body. And they never forgot the past. The Ainu worship a very great number of things,—gods, godlings, and demons,—in heaven, earth, under the earth, and in the rivers and seas. The Creator of all comes first, then the sun, after that the fire, then male and female progenitors of the family, then the various objects of nature, the presiding *daimonés* of rivers, springs,



TWO VERY OLD WOMEN—A SPOT AT THE EASTERN END OF A HUT, SHOWING A BEAST'S SKULL SET UP FOR WORSHIP

lakes, mountains, valleys, trees, animals, birds, fishes, and objects innumerable. Moreover, there are also multitudes of demons to be propitiated. Every kind of bird, from the tiny wren to the great eagle, is worshipped when killed. Food is offered to its spirit and libations poured out before it. When offered ceremonially the process is called *Iyomande*, "a sending away." Fishes also, from the sprat up to the whale, are "sent away" on occasion, particularly salmons, sword-fish, and whales. Every kind of animal, also, is "sent away," from the mouse up to the bear. Dogs also are so treated. Taken altogether, Ainu religion is

a very serious affair and has large and intricate ramifications.

After fire-worship, which includes in it the worship of the ancestors, bear-worship is the chief act of worship, for poor Bruin is cruelly killed by inches, so to speak, in sacrifice, and then eaten. This is a great festival, the underlying principle of which seems to be a notion of kinship, in which all thoroughly enjoy themselves with dancing. Much *saké* is drunk, many cakes eaten, the bear's flesh partaken of, and his soup drunk. It is a cruel, degrading and drunken, noisy revel,* and the authorities ought, in the writer's opinion, to put a stop to the practice.

I have seen tiny cubs brought up at the breasts of Ainu women till they could eat. After this they are kept in cages, such as will be seen in the accompanying illustration, till the time for sacrifice comes round.

The Ainu has been a fine, hardy race in bygone years, and it seems to the writer to be a very great pity that the more intellectual Japanese have not done something to preserve them, even as an off-set for occupying their country.

* For a full account of Ainu religion I must refer the reader to "The Ainu and Their Folklore," pages 446—504, and to my article in Hastings' "Dictionary of Ethics and Religion."



A BEAR CUB IN A CAGE BEING FATTENED FOR A SACRIFICIAL FEAST



FUJI-SAN AT DUSK

LV. BIOGRAPHICAL NOTES

AKIYAMA, GENZO, LL. B., among the best known of distinguished Japanese lawyers, and one who enjoys a high reputation among the foreign business community. Is in general practice as an advocate, attorney, and counsellor at law, conveyancer, and patent agent. He is perhaps best known as corporation lawyer, being retained as adviser to such important concerns as the Standard Oil Company of New York, the Pacific Mail Steamship Company, the American Trading Company, and the Deutsch Asiatische Bank. Born at Kakegawa, Totomi Province, in August, 1859, the eldest son of Toshio Akiyama, a samurai of the Kakegawa clan. He studied Chinese and Japanese classics at the school of his feudal lord, and later entered the Law College of the Tokyo Imperial University from which he was graduated in 1879. He was appointed a Probationary Judge immediately after his graduation and in 1882 he was made the full Judge and was appointed President of the Nagasaki District Court. Some years later, he was transferred to the Yokohama District Court as President of that tribunal, and finally, in 1898, he became Judge of the Supreme Court in Tokyo. Retired from the bench to enter upon private practice, and specialised in legal affairs as they affect foreign corporations. He is a member of the Yokohama

Chamber of Commerce. Mr. Akiyama's head office is at No. 15, Uneme-cho, Kyo-bashi-ku, Tokyo, and he has branch offices at No. 75 Yamashita-cho, Yokohama, and at No. 28 Nakayamate-dori, 4th Street, Kobe.

AKIYAMA, SANEYUKI, Rear Admiral, Commander of the Second Torpedo Boat Flotilla since December, 1916. Born March 20, 1868, in Ehime-ken, youngest brother of General Kouko Akiyama. Graduated from the Naval Academy, 1890. Commander in 1904; Captain in 1908; Rear Admiral, December, 1913. Occupied successively the posts of Instructor of the Naval College, Staff of the First Squadron, of the Combined Squadron, Vice-Captain of the *Mikasa*, Captain of *Akitsushu*, *Otowa*, *Hashidate*, *Izumo*, *Ibuki*, Japanese warships; Staff of the Naval Staff Office. Was ordered to America, June, 1897; went to London, December, 1899. Promoted to the Directorship of the Military Affairs Bureau of the Naval Department, April, 1914. Again went to London on a military commission in June of the same year. On his return, December, 1916, appointed to the present post. Played a splendid part in the Russo-Japanese War as a member of Admiral Togo's staff. Was decorated with the Order of the Rising Sun and the Third Class of the Golden Kite for his military service.

ARIYOSHI, CHUICHI, Governor of Kana-

gawa-ken. Born June, 1873, in Kyoto-fu, eldest son of Sanshichi Ariyoshi. Married Hisae, eldest daughter of Taro Sadahiro. Graduated from the Law College of the Tokyo Imperial University, July, 1896. Passed the Higher Civil Service Examination, November, 1896. Appointed Councillor of Shimane-ken; afterward held the posts of Councillor of Hyogo-ken and Home Department. Visited Europe, October, 1907. Appointed Governor of Chiba-ken, March, 1908; Secretary-General to Resident-General of Korea, July, 1910; Director of the General Administration Affairs; Governor of Miyazaki-ken in 1911; transferred to the present post in August, 1915.

ASANO, SOICHIRO, President of the Toyo Steamship Company and of the Asano Cement Company, etc. Born March, 1848, in Toyama City, eldest son of Taijun Asano. Married Saku, second daughter of Choemon Suzuki of Tochigi-ken. He early came up to Tokyo and established himself as a coal merchant, encountering many hardships. Later organised the Asano Cement Works in Fukagawa, Tokyo, which has operated very prosperously ever since. In 1886 established a shipping and transportation business under the title of Toyo Steamship Company. Opened up a direct steamship service between Japan and South America. Established

Asano Shipbuilding Yard, 1916. In addition to the companies above mentioned, he is connected with the Tokyo Gas, the Ishikari Coal Company, the Tokyo Steel Foundry, the Imperial Theatre Company, the Imperial Hotel, Tokyo Cardboard Manufacturing Company, Tokyo Artificial Manure Company, and several other companies. Decorated with the Third Order of Merit for his services during the Russo-Japanese War.

ASANO, TAJIRO, President of the Hinode Steamship Company, Director of the Third Bank, the Asano Cement Company, the Formosan Land and Building Company, Keelung Land and Building Company, and the Keihin Transportation Company, and Auditor of the Nippon Kyodo Stone Company. Born July, 1884, in Tokyo, eldest son of Soichiro Asano, a leading business man in Tokyo. Married daughter of Count Itagaki. Studied at the Waseda University. Made a tour through Europe and America. Was Manager of the Asano Cement Company.

CHINDA, SUTEMI, Viscount (created 1911), Japanese Ambassador to Washington. Born at Hirosaki, December, 1856, first son of samurai of Tsugaru clan. Married Iwa, third daughter of Yufu Chinda. Graduated from an American university, 1881. Appointed a clerk of the Foreign Office, 1885, changing later to the Telegraph Section in the same office. Consul at San Francisco, 1890; removed to the Consulate at Chemulpo; Consul-General at Shanghai, 1895; Minister to Brazil, next to The Hague, 1899-1900; Envoy Extraordinary and Minister Plenipotentiary to St. Petersburg, 1900; Vice-Minister of Foreign Affairs, 1901; Ambassador to Germany, 1908; Ambassador to Washington, November, 1911. Present post, June, 1916. Decorated with the Grand Cordon of the Order of the Rising Sun.

DEN, KENJIRO, Baron (created 1907). Member of the House of Peers, Minister of Communications since October, 1916. Born, February, 1855, in Hiogo-ken, son of the late Bumbei Den. Married Yasu, elder daughter of Ankyo Shigeno. Studied Chinese classics while young under the tutelage of Seijun Watanabe and Seisai Kojima, the famous scholars of the old Daimyo, and afterwards studied English at the Nagoya Foreign Language School and other institutions. After occupying the post of Superintendent of Police in the prefectures of Kochi, Kanagawa, and Saitama, he was appointed Secretary of the Department of Communications in 1890, and subsequently Director-General of Posts and Telegraphs in the same department. In 1895 and again in 1901 he was Vice-Minister

of Communications in the Ito Cabinet, and also held the same post for the third time in the Katsura Cabinet in 1903. He resigned the post when he was nominated a member of the House of Peers in 1906. Afterwards he became President of the Kyushu Colliery Steamship Company. In 1893 he went to Europe and America, representing Japan at the International Telegraphic Conference at Budapest. He held the posts of Councillor of the Imperial Railway Association and of the Marine Association. On the formation of the Terauchi Cabinet in December, 1916, he was given the portfolio of Communications. He was created Baron and received the Second Order of the Rising Sun in 1907 in recognition of his meritorious services rendered to the State during the Russo-Japanese War. He has also received decorations from the Governments of France, Denmark, Austria, Turkey, and Roumania.

EGUCHI, KOMANOSUKE, Director of the Tokyo Stock Exchange, Limited. Born, 1858, in Yamagata-ken, eldest son of Manemon Eguchi. Married eldest daughter of Seinosuke Shoen, of Ibaraki-ken. Graduated from the Yonezawa Normal School; studied Chinese classics at private school in Tokyo. Went to China, 1879, and made a tour of inspection through Hankow, Shanghai, Teintsin, and Manchuria. Served in the Japanese Consulate, Shanghai, for three years; on his return home in 1884 entered the official service of the Nagasaki Prefectural Office, and the Department of Agriculture and Commerce, 1888; retired from official life, 1898, and became Manager of the Tokyo Stock Exchange, and, later, Director. Despatched to Europe and America to investigate the exchange condition there. Has published "Exchange in Europe and America."

FUJITA, HEITARO, Junior Fifth Rank, Third Order of Merit, Baron (succeeded as, 1912), President of Fujita and Company. Born, October, 1860, in Osaka, eldest son of the late Denzaburo Fujita, founder of Fujitagumi. Married Tomi, third daughter of Count Akimasa Yoshikawa. Studied at the Keio University. After his return home from England he became Vice-President of the Fujitagumi and besides became connected with the Osaka Shosen Kaisha, the Nippon Fire Insurance Company, and the Nikkan Gas Company. After his father's death in 1912 he was ordered to succeed to the peerage and is now President of the Fujitagumi, succeeding his father. He is a prominent business man of Japan.

FUJITA, SHIRO, Member of the House of Peers, Lord-in-Waiting of the Kinkei Hall, Presiding Director of the Formosan Sugar

Refining Company. Born, June, 1861, in Niigata-ken, fifth son of Ryuzo Fujita. Married Bun, adopted daughter of Marquis Inoue. Graduated from the Tokyo Imperial University in 1885. Entered the Government service as *attaché* and councillor to the Foreign Department; served successively in the Japanese Legations at Vienna and Berlin; was appointed private secretary to the Minister of Communications in 1890; sent to Vienna as a representative to the International Postal Conference held there in 1891; promoted to Councillor of the department upon his return; Councillor of the fourth Home Exhibition; promoted to be Vice-Minister of Agriculture and Commerce, 1898; retired from the Government service in 1901, when Marquis Katsura became Premier; nominated member of House of Peers, 1901.

FUJIYAMA, RAITA, Chairman of the Tokyo Chamber of Commerce, President of the Dai Nippon Sugar Refining Company, Director of the Nippon Fire Insurance Company, the Tokyo Gas Company, the Tokyo Stock Exchange, the Nikkwa Life Insurance Company, the Meiji Brick Manufacturing Company, etc. Born in August in Saga City, son of Kakuzaemon Fujiyama. Married Mine, second daughter of Tsunenosuke Yegawa. Completed the course at the Nagasaki Normal School and further studied economics and politics at the Keio University, graduating in 1884. Teacher at Nagasaki Normal School for a short time. Elected member, also Chairman, of the Nagasaki Prefectural Assembly at twenty-five years of age. Established the publication *Nagasaki Shimbun*. Entered the Mitsui firm and was appointed Managing Director of the Shibaura Engineering Works. Organised the Oji Paper Mill Company of which he became President. Elected a member of the Standing Committee of the Tokyo Chamber of Commerce. Rendered useful service in the organisation of the Tokyo Street Railway Company and became Managing Director of the same. Promoted the Shun-to Electric Company with capital of 1,000,000 yen in 1903. Appointed Vice-President of the Nippon Fire Insurance Company. Entrusted with the readjustment of the affairs of the Dai Nippon Sugar Refining Company, the largest concern of its kind in Japan, which was financially embarrassed; finally became President of the same. Is a conspicuous figure in business circles at present.

GOH, SEINOSUKE, Baron (created 1910), member of the House of Peers, Chairman of the Board of Directors of the Tokyo Stock Exchange, Director of the Teikoku Commercial Bank, Special Member of the Tokyo Chamber of Commerce. Born, January, 1865, in Tokyo, second son of the late Baron



SCENE IN UYENO PARK, TOKYO

Junzo Goh. Studied economics, international law, and politics in Germany and Belgium, 1884-1891. Was given official position in Department of Agriculture and Commerce, recommended by the late Count Mutsu (Minister of Agriculture and Commerce, 1892). Left the Government service soon afterward and took up present business.

GOTO, SHIMPEI, First Order of Merit, M. D., Baron (created 1906), M. H. P., Minister of Home Affairs and in addition President of the Imperial Railway Board since October, 1916. Born, June, 1857, in Mizusawa, Iwate-ken, eldest son of Juyemon Goto, a doctor, and a grandson of the famous patriot, Chouei Takano, who was put to death by the Tokugawa Government a little time before the Restoration. Married Katsu, sister of Baron Suyeyoshi Yasuba. Studied medicine at the Medical School at Fukushima; graduated from the University of Berlin with the degree of Doctor of Medicine, 1890-1892. At the early age of twenty he was appointed physician of the Aichi Prefectural Hospital and was also one of the teaching staff of the Prefectural Medical School. Four years later he was promoted to be Chief of the hospital, as well as the medical school. In 1883, he was transferred to the Department of Home Affairs and appointed Acting Director of the Sanitary Bureau, in which capacity he achieved the important work of amelioration of the medical system in Japan, especially that of social sanitary institutions.

Elected President of the Central Sanitary Association and Committee of the Dai-Nippon Sanitary Association. Made an inspection tour of social sanitary institutions in Europe, 1890. Appointed Director of the Sanitary Bureau after his return home in 1892. When the famous Soma scandal case came up in 1893, he was arrested on the charge of complicity in it, but was acquitted soon after. Subsequently he was appointed Sanitary Commissioner of the Army at the time of the Sino-Japanese War. When the late General Kodama was sent to govern Formosa, he was singled out (in 1897) by the General as the Chief of the Civil Administration Bureau of the colonial government. Though a man of medicine by profession, he became by circumstances a man of politics, and it was in the administration of Formosa that he displayed those remarkable abilities which finally brought him rapid official promotion. During the period of his administration of the island, he enforced the Opium and Camphor Monopoly Law, initiated the construction of railways and roads, and developed local industry along sound lines. He was made a Baron in 1906, and given a seat in the House of Peers. When the South Manchuria Railway Company was established in 1906, he was recommended as its first president, and here he also displayed his distinguished abilities in the administration of the railway. In 1908, when the second Katsura Cabinet was organized, he received

the portfolio of Communications, which he resigned in August, 1912. Elected M. H. P.; appointed Minister of Communications again on the formation of the third Katsura Cabinet, and President of the Imperial Railway Board as an additional post, December, 1912. The next year he resigned his official post. On the formation of the Terauchi Cabinet, October, 1916, he was appointed to his present posts. Publications: "On Bureaucracy" (translation from the German); "Principles of State Hygienics"; "Treatise on Sanitary System"; "Common Physiology and Hygienics."

HARA, KEI, M. H. R., a leading figure in the political life of Japan, Member of the House of Representatives for Morioka City, and leader of the Seiyu Kwai, or Constitutionist party. Has had a distinguished career as Government official and statesman. Born in Morioka City in February, 1856, and was educated at the Law College of the Tokyo Imperial University. Entered upon the career of a journalist as a member of the staff of the *Hochi Shinbun*. Went to Korea as a special correspondent in 1882. Later entered the Foreign Office and was appointed Consul at Tientsin, China. Thereafter his career was cast in the public service and politics of Japan. Secretary and *Chargé d'affaires* in Paris in 1886. Returning to Japan he became Private Secretary to the late Marquis Inouye when that gentleman was Minister for Agriculture. Then he took the post of



THE AVENUE OF NIKKO

Director of the Commercial Bureau at the Foreign Office under the then chief, the late Count Mutsu. Promoted to Vice-Minister of the Department, in 1895, and the following year was sent as Minister to Korea. He resigned from this position and became Chief Editor of the *Osaka Mainichi Shinbun*. Returning once more to the public service he succeeded the late Mr. T. Hoshi as Minister of Communications, 1900-1901. Then he became Chief Editor of the *Osaka Shimpō* for a while and having been elected as member of the House of Representatives for his native city in 1902 he continued to devote himself to affairs of state. Was Minister for Home Affairs in the Saionji Cabinet, 1906-1908, holding the same portfolio a second time, and being also President of the Imperial Government Railways, 1911-1912. For a third time he became Home Minister, retaining that office from February, 1913, to the following year. He has been returned for his constituency seven times since his first election. To-day Mr. Hara, by virtue of his leadership of the powerful party to which he belongs, is regarded as the staunchest champion of the Constitution, and his speeches in Parliament are very closely followed. For his long and valuable services to Japan, Mr. Hara has been decorated by the Emperor with the First Class Order of the Rising Sun.

HARA, ROKURO, President of the Fuji Paper Mills Company, Director of the Yokohama Specie Bank and of the Imperial Hotel, Limited, Presiding Director of the Yokohama Dock Company, the Tobu

Railway Company, the Inawashiro Hydro-Electricity Company, Ltd., and the Taian Life Insurance Company, and Auditor of the Tokyo Savings Bank, Ltd. Born, 1844, in Hyogo-ken, sixth son of Rokuemon Shindo, of a well known family in Hyogo-ken. Adopted by Joemon Hara. Married Tomi, daughter of Shozaburo Dokura of Nara-ken. While young he became the friend of Kuniomi Hirano, a famous patriot, and took part in the Restoration Movement. After the Restoration he went to Europe and America for study and stayed there about seven years. After his return he organised the Tokyo Savings Bank in coöperation with Marquis Terumasa Ikeda and Marquis Tadasuke Shimatsu. Further, started the One Hundredth National Bank. Founded the Imperial Commercial Bank in 1894 and became its President. President of the Yokohama Specie Bank, 1883-1890.

HARA, TAKASHI, President of Seiyu Kwai party, M. H. R. Born, February, 1854, at Morioka, younger brother of Kyo Hara. Married Asa, daughter of Yataro Suga. Studied at Foreign Languages School and Law College. Took up journalism as a member of the staff of the *Itochi*. Went to Korea as a newspaper correspondent with Marquis Inoue, Special Envoy, 1882. Entered the Foreign Office as Consul in Tientsin; Secretary and *Chargé d'affaires* in Paris, 1886. Count Mutsu's Private Secretary when Minister of Agriculture and Commerce. Director of the Commercial Bureau at Foreign Office. Promoted to Vice-Minister of the department, 1895.

Minister to Korea, 1896. Chief Editor of the *Osaka Mainichi*. Succeeded the late Hoshi as Minister of Communications, 1900-1901. Chief Editor of *Osaka Shimpō*. Minister of Home Department under the Saionji Cabinet, 1906-1908. Home Minister again and President of the Imperial Railway Board, 1911-1912. Home Minister for the third time, February, 1913, which post he resigned, 1914.

HASHIMOTO, KEIZABURO, Second Order of Merit, M. H. P. Born, September, 1865, first son of Yajuro Hashimoto, a samurai of Niigata-ken. Married Chise, sister of Asataro Yamane, a samurai of Yamaguchi-ken. Graduated from the Law College of the Tokyo Imperial University, 1890. Appointed Secretary of the Privy Council, 1892, having filled the posts of Councillor of the Legislative Administration Bureau, Secretary of the Financial Department, Revenue Officer, Secretary of the Monopoly Bureau, of several departments; appointed Vice-Minister of Agriculture and Commerce, February, 1913, which post he resigned with the fall of the Cabinet and was nominated M. H. P.

HEATH, GILBERT OCTAVIUS, was born in 1873 at Wagga Wagga, New South Wales, Australia, was educated at the Sydney Grammar School, and admitted to practice by the Supreme Court of New South Wales in 1897. He served in the Anglo-Boer War during 1900, and obtained the Queen's medal with four clasps. Mr. Heath came to Japan early in 1904, and in 1906 he joined the firm of Crosse & Yamashita, of Kobé. In 1907, in conjunction with Mr. C. N. Crosse, Mr. Heath took over the late Mr. H. C. Litchfield's share of the legal business which the last named gentleman had established some time prior to 1885, when Mr. Litchfield was Crown Prosecutor of the British Consular Court at Kanagawa. This old established business had grown substantially with the development of the commercial interests of Yokohama, and the practice of the new firm, known as Crosse & Sawada, was further widely extended under the management of Mr. Heath. In 1910 Dr. C. Vogt was admitted a partner and the business was carried on until early in 1913 as Crosse, Heath & Vogt. Dr. Vogt retired in 1913 and the firm name was changed to Crosse & Heath, until the business was taken over entirely by Mr. Heath at the beginning of 1916. Mr. Heath conducts a general law business, and conveyancing, patent and trade-mark registration, and also undertakes the management of estates, and the investment of funds, etc. The office address is No. 75D Yamashita-cho, Yokohama; postal address, P. O. Box No. 117, Yokohama;

cable address "Heath," Yokohama. The London agents for Mr. Heath are Messrs. Stephenson, Harwood & Co., 31 Lombard St.; Australian correspondents, Messrs. Garland Seaborn and Abbott, Bull's Chambers, 14 Moore St., Sydney, and Messrs. Gair & Brahe, Queensland Building, 84-88 William St., Melbourne. Mr. Heath is a Commissioner for Affidavits for the Supreme Court of New South Wales.

HIRATA, HATSUKUMA, Managing Director and General Manager of the Dai Nippon Artificial Manure Company, Director of the Formosan Manure Company, the Kiyoda Colliery Company, and of the Tokyo Industrial Company, and Auditor of the Joso Railway Company. Born, October, 1867, in Yamaguchi-ken, eldest son of Kwango Hayashi and adopted by the late Yoichiro Hirata. Married Masu, second daughter of Hanshichi Mitsuda. Studied Chinese classics in his native province; came to Tokyo, 1888; studied mathematics and bookkeeping. Entered the Mitsui Bussan Kaisha and served at the branches of Otaru and Nagasaki or at the head office. Since then, after serving as chief of the Fishery Department in Hokkaido and Director of the Yingkow branch of the same firm, transferred to Councillor of the head office, 1909; resigned the post in April, 1910, to enter the Dai Nippon Artificial Manure Company as its General Manager; then present post.

HORI, KEIJIRO, President of the Osaka Shosen Kaisha (Osaka Mercantile Marine Company, Ltd.). Born January, 1867, in Ishikawa-ken, eldest son of Gohei Hori, a samurai. Graduated from the Law College of the Tokyo Imperial University, 1893. Served in the Osaka Russian Petroleum Company, 1893-1895; entered the service of the Osaka Shosen Kaisha, Ltd., December, 1895, serving successively as manager in its branches at Chemulpo, Kobé, Shanghai, and Hankow, 1896-1907; Chief of the Traffic Section and Examination Section, February, 1907; Director and Manager, July, 1907; Vice-President, January, 1911; now President.

IKEGAMI, SHIRO, Mayor of Osaka City since September, 1913. Born, April, 1857, in Fukushima-ken, second son of Tasuke Ikegami, a samurai of Fukushima clan. Married Hama, sister of Nyoyen Kosuge of Shizuoka. Entered the service of the Metropolitan Police Board as a policeman in 1877; promoted successively to be Police Sergeant of Ishikawa and Kyoto Prefectures, Superintendent of Kyoto Prison, Police Inspector of Kyoto Prefecture, Chief of Police of Chiba, Hyogo, and Osaka Prefectures, Counsellor of the Osaka Prefectural Government, then elected to present post,

September, 1913. Decorated with the Fourth Order of Merit.

INABATA, KATSUTARO, President of the Osaka Muslim Manufacturing Company, Proprietor of Inabata Dyeing Factory and the firm of Inabata Shoten, member of the Osaka Chamber of Commerce, etc. Born October 30, 1862, in Kyoto, eldest son of Risuke Inabata. Married Tomi, third daughter of Toshige Mori, of Tokyo. Graduated from the Kyoto Normal School, 1877; was sent to France to study applied chemistry (first at the Lyons Technical School and then at Paris University); studied art of dyeing at a dyeing factory in France. Represented the Kyoto Prefectural Exhibitors at the International Exhibition held in Amsterdam, at the same time investigated chemical industry in Holland; returned home in 1884 after investigating the dyeing industry in England, Germany, Italy, Belgium, Switzerland, etc.; appointed Expert to the Kyoto Prefectural Office in 1884; inaugurated the Kyoto Dyeing School and became its President in 1886; appointed Chief Expert of the Kyoto Woolen Goods Company in 1888; afterward established the Inabata Dyeing Factory and became its President, the khaki uniforms which were so extensively used during the Russo-Japanese War being manufactured by him. Has branches in Tokyo, Tientsin, etc. Has several times been appointed Examiner to domestic exhibitions and fairs. Decorated by the Government of France with the Order of the Chevalier de la Legion d'Honneur.

INOUE, JUNOSUKE, President of the Yokohama Specie Bank. Born, March, 1869, in Oita-ken, adopted son of the late Kwanichi Inoue. Married Chiyo, eldest daughter of Hajime Mori, of Yamaguchi-ken. Graduated from the Law College of the Tokyo Imperial University. Entered the service of the Bank of Japan; occupied important posts as Chief of the Business Bureau of the bank. Made business tour of Europe and America. Vice-President of the Yokohama Specie Bank, 1911-1913.

INUKAI, TAKESHI, M. H. R. for Okayama-ken, leader of the Kokuminto (National party). Born, April, 1855, in Okayama-ken, second son of the late Genzayemon Inukai. Married Chiyo, sister of Sennosuke Mita, of Tokyo. Studied at Keio University. Became Editor of the *Hochi Shimbun*, serving as war correspondent of the paper during the Satsuma Rebellion in 1877. In 1880 started the publication of the "Tokai Economic Magazine" and strongly advocated the principle of trade protection as opposed to free trade, advocated by the late Ukichi Taguchi. Appointed Junior Secretary to the Board of Statistics the following year; resigned office and became member of the Con-

stitutional Progressive party, organised in 1882; elected member of the Tokyo-fu Assembly same year; joined the staff of the *Choya Shimbun*, becoming Editor. Elected member of the House of Representatives, 1890; occupied the chair of Minister of Education for a while with the Okuma Cabinet in 1898; held the post of Chief of the General Committee of the Constitutional party for a number of years; was one of the organisers of the newly formed Kokuminto (National party) of which he is now leader. One of the most energetic politicians in the opposition party. Decorated with the Second Order of Merit.

ISHII, KIKUJIRO, First Order of Merit, Viscount (created 1916), member of the House of Peers (October, 1916), Minister since October, 1915. Born, February, 1866, in Chiba-ken, adopted into Ishii family. Married Tama, daughter of Tadashi Kashi-mura. Graduated from the Law College of the Tokyo Imperial University, 1890. On graduation passed the Diplomatic Service Examination and entered the service of the Foreign Department as Probationer; Diplomatic *Attaché* in 1891; Second Class Secretary of Legation at Paris in 1893; First Class Consul at Chemulpo in 1896; Second Class Secretary of Legation at Peking in 1898. During the Boxer Trouble was among the besieged; after peace was restored was called back to Foreign Office to fill successively the posts of Secretary, Chief of the Section of Telegraphs in 1900, and then Director of the Bureau of Commercial Affairs. Was despatched to San Francisco and Vancouver in 1907 to investigate the anti-Japanese movements in those places. Vice-Minister of the Foreign Department in 1908. Ambassador to Paris, 1912-1915. Foreign Minister, 1915-1916. Chief of the Japanese Political Mission to America, 1917.

ITAMI, JIRO, Joint Managing Director of the Nippon Yusen Kaisha since January, 1917. Born in Tokyo, younger brother of Baron Haruo Itami. Married Tsutae, second daughter of Seiji Suzuki, of Hyogo-ken. Early entered the Nippon Yusen Kaisha and was promoted successively to the present post.

ITO, TAKUMA, Standing Director of the Nippon Leather Company, Director of the Tokyo Woolen Manufacturing Company and of the Nippon Shoes Company, and Auditor of the Okura Gumi. Born, September, 1869, in Saijo-machi, Ehime-ken, third son of Haruo Ito. Married Tei, eldest daughter of Motokiyo Isahaya, 1899. Graduated from the College of Law of the Tokyo Imperial University, 1897, and studied further in England. After his return home served at the Okura Gumi, 1899-1909; became

Standing Director of the Nippon Leather Company on its establishment.

ITO, YONEJIRO, Joint Managing Director of the Nippon Yusen Kaisha. Born, December, 1861, in Ehime-ken, second son of Kihaku Ito. Married Kei, aunt of Sadaaki Ito, of Ehime-ken. Early entered the Nippon Yusen Kaisha and was promoted successively to the present post. Before present post was Manager of the London branch.

ITO, YOSHIGORO, Baron (created 1907), Vice-Admiral (retired), M. H. P. Born May 5, 1858, in Nagano-ken, fourth son of Kenji Ito, a samurai of Nagano clan. Married Mari, daughter of a French naval officer. Graduated from the former Kaigunheigakuryo (naval academy) in 1876. Midshipman on board the *Tsukuba* in the same year. Took part in the Satsuma Rebellion in 1880; Sub-Lieutenant in the following year; Lieutenant, 1882. Sent to France and Germany to study gunnery, 1884-1888. Lieutenant-Commander, 1886; Chief Gunner of the *Takachiho*. Member of the Naval General Staff and Staff-Officer of the Standing Squadron in succession. Commander, 1890; Second Captain of the *Hiei*, *Yamato*, *Katsuragi*, and *Takachiho*, etc. Private Secretary to the Minister of the Navy during the Japan-China War. Captain, 1896. Legation *attaché* at Paris and Commander of the *Shikishima* successively; Rear Admiral, 1900; Commander of the Standing Squadron; Chief of the Construction Department of the Yokosuka Naval Station; Commander of the Takashiki Second Naval Station, etc. Vice-Admiral, 1905; created Baron, 1907; invested with the Second Order of the Rising Sun together with the Third Class of the Golden Kite in connection with the Russo-Japanese War.

IWASAKI, HISAYA, millionaire, Baron (created 1895), ex-President of the Mitsubishi Company. Born, 1855, in Tokyo, eldest son of the late Y. Iwasaki, the founder of the Mitsubishi firm. Married Shizu, sister of Viscount Masaaki Hoshina. Studied at the Keio University and then at the Mitsubishi Commercial School. Later went to the United States and graduated from Pennsylvania University in 1891, with the degree of LL. B. Became President of the Mitsubishi Company on his return to Japan. Was created Baron in recognition of the meritorious services rendered to the State by his illustrious father. He retired from the presidency of the Mitsubishi Company in favour of his younger brother, Baron K. Iwasaki, in 1916.

IWASAKI, KOYATA, Baron (created 1896), President of the Mitsubishi Company (since July 1, 1916), Director of Tokyo Warehouse Company, Limited, Yokohama Specie Bank,

and the Asahi Glass Company. Born, August, 1879, son of the late Y. Iwasaki. Married Ko, youngest sister of Baron Sonosuke Shimazu. Educated at Cambridge University.

KATO, TAKAAKI, Viscount (created July, 1916), M. H. P., leader of the Kensei-kwai (Constitutional party). Born January 3, 1859, at Sayamura in Aichi-ken, adopted into the family of Buhachiro Kato. Married Haruji, youngest sister of Baron Hisaya Iwasaki, 1886. Graduated from the Law College of Tokyo Imperial University in 1881. Entered business as a clerk of the Mitsubishi Company, where he served a few years as Manager of the Hokkaido branch. Entered the Foreign Office, 1887, and was appointed Private Secretary to Count Okuma (Foreign Minister, 1888); transferred to Financial Department and promoted to Director of the Banking Bureau; later of the Taxation Bureau; returned to Foreign Office and was appointed Minister Plenipotentiary to England, 1894-1899; Minister for Foreign Affairs under the Ito Cabinet, 1900-1901; elected member of the House of Representatives for Kochi-ken, 1902; again elected for Yokohama in 1903; appointed Foreign Minister under the Saionji Cabinet, 1906, but left the ministry owing to his opposition to the Railway Nationalization; Ambassador to Court of St. James until December, 1912; joined the late Prince Katsura's third cabinet as Foreign Minister for the third time, but resigned very soon owing to the sudden downfall of the ministry; organised the Doshikwai with the late Prince Katsura, and became its President, 1913; joined the Okuma Cabinet as Foreign Minister, April, 1914, resigning in August, 1915; elected member of the House of Peers, August, 1915.

KATO, TOMOSABURO, Admiral, Minister of the Navy since August, 1915. Born February 22, 1859, in Hiroshima-ken. Graduated from the Naval College. Appointed Second Sub-Lieutenant, 1884; Captain, 1899; Professor of the Naval Academy; Sectional Chief of the Naval Affairs Bureau of the Navy; Chief of Staff of the Standing Squadron, 1902; Chief of Staff of the Kamimura Squadron; transferred to that of the Combined Fleet during the Russo-Japanese War; appointed Vice-Minister; appointed Commander-in-Chief of the First Squadron, 1906; Vice-Admiral, 1908; was given the title of the portfolio of the Navy under the Okuma Cabinet; Vice-Admiral, 1908. He was the right-hand officer of Admiral Togo and Admiral Kamimura in the Russo-Japanese War. Took part in the Japano-German War, 1914. Decorated with the First Order of the Rising Sun and Second Class of the Golden Kite and Grand Cordon of the Rising Sun, for his services, July, 1916.

KAWASAKI, SUKETARO, M. H. R. for Gifu City, President of the Kyoto Estate and Building Company, Director of the Nippon Petroleum Company and the Osaka Muslin Company, dealer in foreign piece goods. Born January 13, 1873, in Gifu-ken, son of Kikuo Kawasaki. Married Shiu, sister of Kichisaburo Doi. Studied at the Kobé English Institute. At the age of twenty-four years he started himself in the foreign piece goods business. Has made three trips abroad. Has a piece goods shop in England. Elected M. H. R. for Gifu City and belongs to the Kensei-kwai (Constitutional party).

KAWASAKI, YOSHITARO, President of the Kobé Kawasaki Bank, Limited, and the Fukutoku Life Insurance Company, Vice-President of the Kawasaki Dockyard, Limited, Director of the Arashiyama Electric Railway Company, Limited. Born January 7, 1869, in Hyogo-ken, eldest son of Jembei Onizuka and adopted by Shozo Kawasaki. Married Chika, second daughter of his adopted father, Shozo Kawasaki. Graduated at Poughkeepsie, New York, U. S. A. Since his return home, has been engaged in his adopted father's shipbuilding business. (See Osaka and Kobé Shipbuilding Section, this volume.) In the Russo-Japanese War, 1904-1905, he rendered signal services to the State by repairing the ships of the Imperial Navy and executing its secret orders. Decorated with the Fourth Order of Merit as a war reward.

KIKUCHI, KYOZO, Kogakuhakushi (Doctor of Engineering), President of the Amagasaki Cotton Yarn, Limited, Managing Director of the Settsu Cotton Yarn Company, Limited, Director of the Nippon Cotton Yarn Company, Limited. Born in 1859 in Ehime-ken, third son of Yasunari Kikuchi. Married Suma, second daughter of Keiyu Shirae of Nagasaki-ken. Graduated as Mechanical Engineer from the Kobu Daigakko (former Government Technical College), 1885, and studied cotton spinning further in England. Returning home, he started in the same line of business and has greatly contributed to the success of different cotton spinning companies. Received the degree of Kogakuhakushi (Doctor of Engineering) in February, 1915.

KIRISHIMA, ZOICHI, Head of the Land Department of the Mitsubishi Company. Born in 1864 in Kochi-ken, eldest son of Masachika Kirishima, a samurai. Married Mitsu, youngest sister of Denjiro Hagi, a samurai of Nagasaki. Graduated from the Law College, Tokyo Imperial University. On graduation entered the Mitsubishi Company and has been promoted successively to his present post.



(1) Mr. M. NAKAMATSU, Counsellor at Law and Patent Attorney, Tokyo. (2) Mr. T. TOKONAMI, M. H. R. (3) Mr. TSUNEJIRO MIYAOKA, Prominent International Lawyer. (4) Mr. HEIKICHI OGAWA, Member of House of Representatives and Counsellor at Law. (5) Mr. REN YABE, Counsellor at Law and Patent Attorney. (6) Dr. S. OBA, Counsellor at Law and Patent Attorney. (7) Mr. GENZO AKIYAMA, Counsellor at Law, Tokyo. (8) Mr. H. OSAKI, M. H. R.

KITA, MATAZO, Managing Director of the Nippon Menkwa Kabushiki Kaisha (The Japan Cotton Trading Company, Limited). Born September 11, 1877, at Toriido, Katsuragi-mura, Minami-Katsuragi-gun, Nara-ken, third son of Choshichiro Kita. Married Tei, third daughter of Bunnosuke Komura. Graduated from the Osaka Higher Commercial School, 1894. On graduation entered the Japan Cotton Trading Company and served at its Bombay branch for five years following 1896; present post since 1911. During that time he travelled through India, China, Egypt, and America. Beside the above mentioned post, he is Director of the Osaka Meriyasu Weaving Company, Chairman of the Japan Cotton Merchants' Union, and Standing Member of the Osaka Chamber of Commerce.

KONDO, RENPEI, Baron (created 1911), First Order of Merit, President of the Nippon Yusen Kaisha, Limited, and the Nishin Steamship Company, Director of the Kirin Beer Brewery Company, Limited, the Tokyo Marine Insurance Company, and the Inawashiro Hydroelectric Company. Born, November, 1848, in Tokyo, second son of Gensen Kondo. Married Ju, youngest sister of Ryohai Toyokawa, a famous business man. Studied at the Keiogijuku. Entering the service of the Mitsubishi firm, he gained the confidence of the late Yataro Iwasaki and served as Manager of the head office at Tokyo and of the branch office at Yokohama. Rendered great services in the amalgamation of the Mitsubishi firm with the Kyodo Unyu Kaisha, and became Vice-President of the newly formed Nippon Yusen Kaisha. When the war between Japan and China broke out in 1894, he ably assisted the late Mr. Yoshikawa, then President of the company, in transportation of war materials and troops, in recognition of which he was rewarded with the Fourth Order of Merit. President of the company on the death of Mr. Yoshikawa. Made various European and American trips. Created Baron and decorated with Second Order of Merit for signal service in the development of Japan's merchant marine.

KUHARA, FUSANOSUKE, President of Kuhara Mining Company, Limited. Born June, 1869, in Yamaguchi-ken, third son of the late Shozaburo Kuhara, and cousin of Baron Heitaro Fujita. Married Kiyō, sister of Gisuke Ayukawa, of Yamaguchi-ken. Graduated from Keio University, 1889. On graduation entered the Morimura-gumi, which post he resigned soon to enter the Fujita-gumi, when he started his career as a clerk at Kosaka Mines, and rose by successive promotions to be manager of the same. Succeeded to his father's house, 1915;



A JAPANESE "GEISHA"

established the Kuhara Mining Company with capital of Yen 10,000,000. Is now a millionaire of Japan.

KUSHIDA, MANZO, Ph. P., Head of the Banking Department of the Mitsu Bishi Goshi Kaisha. Born, February, 1867, in Tokyo, eldest son of Magosaburo Kushida. Married Fumi, elder sister of Shigezo Imamura. Studied at the University's Preparatory School; studied finance and economics in the University of Pennsylvania, graduating in 1890. On his return home, 1894, entered the Banking Department of Mitsu Bishi Goshi Kaisha and served at the branches in Osaka and Kobé; returned to the head office, 1901, and occupied the post of Sub-Manager of Banking Department; then present post.

MAKOSHI, KYOHEI, President of the Dai Nippon Brewery Company and of the Ihara and Kasaoka Light Railway Company, Presiding Director of the Nippon Acetic Acid Company and of the Tokyo Hat Company, Director of the Toho Fire Insurance Company and of the Inawashiro Hydro-Electricity Company, Auditor of the South Manchuria Railway Company, the Toyokawa Railway Company, and the Dairen Real Estate Company, Member of the Tokyo Chamber of Commerce. Born, October, 1844, in Okayama-ken, second son of Gensen Makoshi. Married Kiku, second daughter of Mambei Kurano. In 1873 he came to Tokyo and entered the Mitsui Bussan Kaisha, shortly afterward being appointed Manager of its Yokohama branch.

Became President of the Nippon Brewery in 1892. When, in 1905, this company was amalgamated with the Sapporo and Osaka Beer Companies, under the name of the Dai Nippon Brewery Company, he was elected President, which position he still holds. In 1898 he was elected a member of the House of Representatives for Okayama-ken. Made a tour through Europe and America for business investigations in 1912; went to China with Baron Shibusawa in 1913. He is one of the leading business men in Japan, and has been decorated with the Fourth Order of the Rising Sun.

MATSUI, KEISHIRO, First Order of Merit, Ambassador to Paris since November, 1915. Born March 5, 1868, in Osaka, second son of Yasuzo Matsui. Married Teru, sister of Shigezo Imamura. Graduated from the Law College of Tokyo Imperial University, 1889. Appointed Probationer of Foreign Affairs after graduation; Third Legation Secretary, 1893; Second Legation Secretary, 1894; *attaché* to the Japanese Embassy at Washington, January, 1895; First Legation Secretary, September, 1897; served at the Japanese Embassy in London, April, 1898, and at Peking, September, 1902; Councillor of the Foreign Office, July, 1905; Councillor to the Embassy in Paris, March, 1906; appointed Councillor to the Embassy at Washington, March, 1906; recalled to the Foreign Office to take up the post of Vice-Minister; then present post.

MATSUKATA, GORO, Sixth Order of Merit, Managing Director of the Oriental Sugar

Refining Company, Limited, President of the Tokyo Gas and Electric Industrial Company, the Horoshima Gas Company, and of the Tokiwa Shokwai, Director of the Tokai Life Insurance Company, and Auditor of the Ujigawa Electric Company. Born, April, 1871, in Kagoshima City, fifth son of Marquis Masayoshi Matsukata. Married Kame, second daughter of Chujiro Shibukawa. Graduated from the Law College of the Toyko Imperial University in 1896; studied in England and Germany, 1897-1901. Since his return to Japan, he has devoted all his energies to the great business enterprises with which he is connected.

MATSUKATA, KOJIRO, President of the Kawasaki Shipbuilding Yard, the Kobé Gas Company, and the Kyushu Electric Tramway Company, Director of the Osaka Sirup Manufacturing Company. Born, December, 1895, third son of Marquis Masayoshi Matsukata. Married Yoshi-ko, sister of Viscount Takateru Kuki. Graduated from the Peers' School and the Imperial University; studied in Europe and America. Upon return home became Lecturer of the Tokyo Imperial University; resigned to enter business. Elected M. H. R. for Kobé City, 1912.

MATSUKATA, MASAYOSHI, Marquis (Count, created in 1884 and Marquis in 1906), M. H. P., Privy Councillor, Councillor of the Bureau of Decorations. Born, February, 1835, in Kagoshima, fourth son of Yenzo Matsukata, a samurai of Kagoshima. Married Masako, first daughter of Sadayu Kawakami, a samurai of Kagoshima. Is one of the "Elder Statesmen." Entered the Financial Department soon after the Restoration and became Minister of Finance in 1881; held the post over ten years and instituted great reforms. In 1891 formed a Cabinet and became the Premier with additional portfolio of Minister of Finance. Ministry fell the following year, unable to withstand the united attacks of the opposite parties; was again Minister of Finance on the occasion of the Japan-China War; was obliged to resign his post in consequence of differences of opinion with the late Prince Ito, then Premier. His second Ministry, 1896-1897, was made memorable by the establishment of the gold standard. Was Financial Minister in the Yamagata Ministry that followed, 1898-1900. In 1902 he travelled through Europe and America. A Privy Councillor since July, 1903; President of the Japan Red Cross Society in 1903, which post he resigned in 1913. Has been decorated with the Order of the Chrysanthemum and promoted to the rank of Marquis in recognition of meritorious services. Publications, "Report on the Adjust-

ment of Paper Currency" (in Japanese); "History of National Debts in Japan" (translated into English); "Report on the Post Bellum Financial Administration in Japan" (translated into English); "Notice Historique sur la Réforme de l'Import Foncier au Japon" (written in French).

MATSUMURO, ITASU, Minister of Justice since October, 1916. Born, January, 1852, in Fukuoka-ken, first son of Shingo Matsumuro, a samurai of Fukuoka-ken. Married Koto, first daughter of Tsuneyuki Yotsuya, a samurai of Tokyo. Graduated from the Law College of the Tokyo Imperial University in 1884. Appointed Probationary Judge, 1884; Judge of the Tokyo Court of Appeal in the same year; Public Procurator and Procurator in Chief of the Nagasaki Court of Appeal, June, 1898; President of the same court, June, 1901; Procurator-General of the Supreme Court, July, 1904. In addition, he has held the posts of President of the Administrative Litigation Court; Minister of Justice under the second Katsura Cabinet, December, 1912, to February, 1913; Chief Auditor to the Imperial Household Treasury, July, 1914, to October, 1916. On the formation of the Terauchi Cabinet he was appointed to his present post. He was decorated with the First Order of the Sacred Treasure, in October, 1915.

MATSUO, HISAO, Director of the Mousseline de Laine Spinning and Weaving Company, Limited. Born, March, 1871, in Mie-ken, fourth son of Kazunao Matsuo. Married Matsuko, elder daughter of Heisaku Iida, of Oita-ken. Graduated from the Economic Course of the Keio University, 1894. Joined the staff of the *Jiji Shimpō*, a daily paper, as writer, immediately after graduation; was in China as the Peking correspondent for the above mentioned paper, 1896-1898; Manager of the Osaka branch of the *Jiji Shimpōsha*; Manager of Murai Brothers & Company, 1899; connected with the present company since 1908.

MEGATA, TANETARO, Baron (created 1906), Member of House of Peers. Born July 20, 1853, first son of Kosuke Megata, a samurai. Married Itsu, adopted sister of Count Katsu. Graduated from Harvard University; studied economics; returned home and served as judge, Secretary of the Financial Department and the State Council; Revenue Officer; Councillor of Finance; Director of Revenue Bureau; Director of Experimentary Brewery Laboratory; went to Europe and America as superintendent of Government students; appointed Financial Advisor to Korean Government, 1904, holding the post until October, 1907, when the new Japan-Korean agreement was concluded; nominated member of the House

of Peers, 1904; created Baron in recognition of meritorious service during the Russo-Japanese War. Has been decorated with the Second Order of Merit. Head of Japanese Commercial Mission to America, 1917-1918.

MISHIMA, YATARO, Viscount (succeeded as, 1888), Member of House of Peers, President of the Bank of Japan since February, 1913. Born April, 1867, first son of the late Viscount Michiyoshi Mishima. Married Kane-ko, sister of Marquis Takanaru Shijyo. Studied in an American university, 1884-1888; repeated his visit, 1889-1892. Appointed Expert of Hokkaido, 1888; elected member of the House of Peers, July, 1897; Director of the Yokohama Specie Bank; promoted to the presidency of the same, 1911; present post since 1913. Has been decorated with the Fourth Order of the Rising Sun.

MIYAOKA, TSUNEJIRO, Lawyer. Born in 1865 at Osaka. Married Keiko, second daughter of Ginsaku Masaki, a samurai. Graduated with honors in law from the Tokyo Imperial University, 1887. Entered diplomatic service, being commissioned as *Attaché* of Legation and assigned to duties in Law Bureau of the Department of Foreign Affairs, 1887. Secretary of Legation and Junior Councillor of the department, 1889; *Chargé d'affaires* at Washington, 1894; First Secretary of Legation at Berlin, 1894-1900, part of that time acting as *Chargé d'affaires*; Minister Resident and Senior Councillor of the department, 1900-1906; represented Japanese Government before International Arbitral Tribunal of The Hague, 1904-1905; Councillor of Embassy at Washington with rank of Minister Plenipotentiary, 1906-1908; President of Japanese Commission to International Opium Conference, 1909. Resigned to take up general practice of law, 1909.

MOTONO, ICHIRO, Viscount (created 1916), Hogakuhakushi, Foreign Minister since November, 1916. Born, February, 1862, in Saga-ken, first son of Seikyo Motono, a samurai of Saga clan. Married Hisa-ko, elder sister of Viscount Ikizo Nomura. Graduated from the University of Lyons, France. On his return home was appointed translator in the Foreign Office, 1890; then Councillor, 1893, and had conferred on him the degree of Hogakuhakushi; private secretary to the Foreign Minister and Councillor to the Administrative Bureau, 1895; transferred as First Secretary of Legation at St. Petersburg, 1896; appointed Minister-Resident at Brussels, 1898; was a Junior Delegate of Japan to the Peace Conference held at The Hague, 1899; transferred to be Minister at Paris, 1901; Ambassador at

Petrograd, January, 1906. Has been decorated with the First Order of the Grand Cordon of the Rising Sun. Created Viscount for his distinguished services to the State, July, 1916.

MURAI, KICHIBEI, President of the Murai Head Office, the Murai Bank, and the Murai Savings Bank, Director of the Murai Steamship Company, the Murai Coal Mining Company, the Teikoku Reeling Company, the Imperial Hotel, the Murai Warehouse Company, Auditor of the Hohden Petroleum Oil Company, of the Toa Flour Refining Company, of the Imperial Theatre Company, and of the Formosan Sugar Refining Company. Born, January, 1864, in Kyoto, second son of Yahei Murai, and adopted by Kichiemon Murai, his uncle. Married Kaoru-ko, daughter of Viscount Hinonishi. Went to America; studied the manufacture of cigarettes. His cigarettes first appeared on the market in 1893; being extensively advertised they developed an important sale in Japan, and by 1903 had practically stopped the import of foreign cigarettes; also exported to China and other countries in large quantities. In 1889 a combine was formed with the American Tobacco Company under the name of Murai Brothers & Company, of which company he was elected President and Director. This concern was purchased by the Government when it launched the Tobacco Monopoly in 1905. He established the Murai Bank; has opened branches and agencies in all the important commercial centres of the Empire. Now interested in many enterprises.

NAITO, HISAHIRO, President of the Nippon Kerosene Company, Limited, Director of Niigata Iron Works. Born July 22, 1859, in Niigata-ken, eldest son of Hisayuki Naito. Married Saga, younger sister of Shoji Hirokawa, of the same province. Elected member of the Prefectural Assembly, 1885; member House of Representatives, 1894; established the Nippon Petroleum Company, Limited, 1888. While holding a seat in Parliament he went to Europe to inspect petroleum industries, commissioned by the Department of Agriculture and Commerce, 1897; returned home in December of the same year; sent to America by the same department, 1904; returned home in August of the same year; nominated Councillor of the Japan Grand Exhibition, 1908. Was given a "Blue Ribbon" in recognition of his brilliant services, 1909.

NAKASHI, TOKUGORO, Third Order of Merit, M. H. R. for Kanazawa City, President of the Ujigawa Electric Company, Limited, President of the Japan Lime Nitrogen Company, Limited, Auditor of the South Manchuria Railway Company, Limited.

Born, 1864, in Kanazawa, fifth son of Soichi Saito, a samurai of Kanawa, adopted into the Nakahashi family. Married Etsu, adopted daughter of the late Baron Demzaburo Fujita. Studied law, politics, and political economy at the Tokyo Imperial University. When he graduated, in 1886, he became judge, but soon was transferred to the administrative service and contributed to the development of industry as Councillor of the Agriculture and Commerce Department. In 1889 he was appointed Councillor of the Bureau of Legislation, and visited England, France, Germany, Austria, Italy, Russia, and North America as the Commissioner, and engaged in investigation of the parliamentary systems of Europe and America. When he returned to Japan in the following year, after studying the constitutional governments of the above mentioned countries, the First Parliament of the Empire was about to be opened, and he was appointed Secretary of the House of Representatives. In 1891 he was transferred to the Department of Communications, and after serving as Director of the Accounts Bureau and Director of the Inspection Bureau, he was promoted to the post of Director of the Railway Bureau. In 1898 he became the President of the Osaka Shosen Kaisha (Osaka Mercantile Steamship Company). At that time the economic circles of the Empire were panic stricken as a consequence of the Japan-China War, and various industrial companies were brought to the brink of ruin. Especially was the carrying trade badly depressed. Hereupon Mr. Nakahashi carried out certain reforms in the administration of the company, and also endeavoured to increase its income. As a result, the business gradually began to improve. He also regulated the old service lines, and at the same time opened new ones. Thus, reforming the administration on the one hand, and amalgamating with other companies also engaged in coast navigation on the other, the business was almost doubled. Since passing through the Russo-Japanese War, the foundation of the company has become more solid, and the business has gone on expanding. At present steamship services of the company include Japan, Formosa, Southern China, Northern China, Manchuria, Korea, Vladivostock, Saghalien, and America. After Mr. Nakahashi witnessed the prosperity of the company, he resigned the presidency, in 1914. When the Uji-river Electric Company was established in 1906, he was chosen its President. The object of the company is to utilize the water-power of Biwa, the largest lake of Japan, and to supply electric power to Osaka, Kyoto, and other large towns in the vicinity. The

capital of the company is 12,500,000 yen. The plans for the work are the largest of their kind in Japan. Mr. Nakahashi was elected a member of the Osaka Municipal Assembly, and became its President; was elected M. H. R. for Osaka City in 1912, and for Kanazawa City in 1916 and 1917. Publication: "Removal of the Imperial Capital to Osaka."

NAKAMATSU, MORIO, F. R. S. A., is one of the leading and best known authorities in Japan on the law relating to patents, and generally regarding industrial matters as they affect foreign concerns. His experience is a very lengthy one, and from the distinguished official career which he had before entering upon private practice as Counsellor at Law and Patent Attorney, it will be seen that Mr. Nakamatsu is particularly well qualified to direct the Nakamatsu International Patent and Law Office which he founded. The subject of this sketch was born in Wakayama Prefecture, and graduated from the Law College of the Tokyo Imperial University in 1891. He entered the service of the Government in the Department of Agriculture and Commerce, and was appointed Secretary of the Patent Office in 1895. He served in this office for eighteen years, the last six as Director. Mr. Nakamatsu took part in the drafting of all the legislation relating to industrial property, and as representative of his Government he attended the Technical Congress for the unification and simplification of industrial property, held at Berne in 1904. In 1911, in a similar capacity, he attended the Conference of the International Union for the Protection of Industrial Property, held at Washington. He resigned his public position in 1913 and opened a patent and law office the following year. Mr. Nakamatsu has therefore had an intimate knowledge and great experience in matters relating to industrial property, both at home and abroad. The staff of the Nakamatsu International Patent and Law Office is well appointed, and the business is growing steadily year by year. Members of the staff are Messrs. R. Ono, Chemical Engineer, Patent Attorney, and ex-Chief Examiner of the Imperial Patent Office; K. Okada, Mechanical Engineer, Patent Attorney, and ex-Assistant Examiner of the Imperial Patent Office; S. Yashima, Counsellor at Law and Patent Attorney, graduate of the Tokyo Imperial University, and Y. Ikeda, Counsellor at Law and Patent Attorney, graduate of the Tokyo Imperial University.

The office address of Mr. Nakamatsu is No. 21 Mitsubishi Building, Marunouchi, Tokyo.

NAKANO, BUEI, Chairman of the Tokyo Chamber of Commerce, Chairman of the Tokyo Municipal Assembly, President of the Nisshin Life Insurance Company, Director of the Ishikari Colliery Company, Limited, and of the Hakodate Water Power Electric Company, Limited. Born January 3, 1848, at Takamatsu in Kagawa-ken, eldest son of Kaichi Nakano, a samurai. Married Sen, younger sister of Nagayuki Shimazu, a samurai of Kagawa-ken. Entered the Kagawa Prefectural Office in 1872; an administrative official of the Kumamoto Prefectural Office at the time of the Saigo Rebellion; then of the Yamaguchi Prefectural Office; entered the Central Government as Junior Secretary to the Department of Agriculture and Commerce, 1881; resigned with Count Okuma and joined Kaishinto (Progressive party) in 1888; was elected member of the Prefectural Assembly of Kagawa, his native place, and was afterwards appointed Chairman. Began his business career as Vice-President of the Tokyo Stock Exchange, Limited; then President of the Kansai Railway Company, Limited. Was elected M. H. R. to the first session of the Imperial Diet in 1890; elected successively eight times. Filled important posts in various companies; nominated Chairman of the Tokyo Chamber of Commerce until 1917; Chairman of Tokyo City Assembly, June, 1914. Visited America in 1909.

EDITOR'S NOTE: To Mr. Nakano much of the success of this compilation is due, inasmuch as he gave it his very enthusiastic support and approval, for which we make grateful acknowledgment.

NAKASHOJI, REN, Second Order of Merit, M. H. P., Minister of Agriculture and Commerce since October, 1916. Born, July, 1866, in Yamaguchi-ken, second son of Kyuryo Nakashoji, a samurai. Married Yae, third daughter of Asazo Shimamoto of Hyogo-ken. Graduated from the English Law School in 1882; passed the Government examination for the Bench in 1887; Clerk of law court; Public Procu. in 1890; Procu. of the Yokohama District Court, then of the Tokyo Court of Appeal; Councillor of the Department of Justice; sent to England in 1901; Director of the Bureau of Civil Engineering in the Home Department in 1904, then of the Police Bureau in the same year; Vice-Minister of Communications until December, 1913; Minister of Agriculture and Commerce from December, 1912, to February, 1913; then nominated M. H. P.

Oba, DR. SHIGEMA, JR., Doctor of Law and Patent Attorney, holds a distinguished place in the legal system of Japan, and is recognised as an authority on criminal

jurisprudence. He was born in Yamagata in November, 1869, a son of the late Iwazo Oba, a samurai. Dr. Oba graduated in the English Course of the Hogakuin (now the Chuo University), July, 1899. Previous to this he had passed the examinations qualifying him to practise law (1891), and to take a seat on the bench when appointed. He entered upon the practice of his profession, and in October, 1895, was appointed

He is an ardent advocate of the revision of the new Criminal Code now in force. He was elected a member of the House of Representatives for Yamagata Prefecture in 1915. Dr. Oba has written extensively on legal matters, his most important works being, "Fundamental Principles of Criminal Policy," "Fundamental Subjects of Criminal Policy," "Introduction to Criminal Law," "The Jury System," "Method of Identifying



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a judge, taking seat in turn at Osaka, Kobé, and Nagoya. Dr. Oba was a judge until 1908, when he was made Public Procurator for the Tokyo District Court, a position he held for three years. In September, 1905, he went to Germany to investigate the conduct of public prosecutions, and while there he entered the Law College of Muchen University, graduating as Doctor of Jurisprudence in 1907. On his return to Japan, Dr. Oba was appointed Public Procurator of the Tokyo District Court, and Councillor of the Department of Justice in April, 1908. He also served at the Bureau of Civil and Criminal Affairs, and the Prison Bureau. He was Manager of the Legal Investigation Committee, 1908-1913, and obtained the degree of Hogakuha-kushi (Doctor of Law), March, 1913. The following month he was appointed a judge of the Supreme Court, but after one year's service resigned his official post to enter private practice as Counsellor at Law and Patent Attorney. Dr. Oba is well known for having introduced the finger-print system of identification in criminal affairs.

Culprits," etc. Dr. Oba's office address is No. 3 Yurakucho, 3-Chome, Kojimachi, Tokyo.

OKADA, RYOHEI, Minister of Education since October, 1916. Born, May, 1864, in Shizuoka-ken, eldest son of the late Ryoichiro Okada, a samurai of Kakegawa clan. Married Misao, second daughter of Tsutomu Ishiguro, a samurai of Shiga-ken. Graduated from the College of Literature of the Tokyo Imperial University, 1887. Appointed Professor of the former First Higher Middle School; School Inspector of the Department of Education; Councillor to the same; President of the Yamaguchi Higher Middle School; Secretary of the Department of Education; member of the Higher Educational Council; Councillor to the Department of Education; Director of the Technical Education Bureau of the same; Secretary-General of the same; Lord-in-waiting in the Kinkei Hall. He represented Japan at the International Population and Sanitation Conference held at Paris, 1900; nominated member House of Peers, 1904; President of the Kyoto Imperial

University, 1907; Vice-Minister of Education in 1908, which post he later resigned.

OKURA, KIHACHIRO, Second Order of Merit, Baron (created December 1, 1915), millionaire, President of the Okura Gumi, Presiding Director of the Imperial Hotel, Limited, of the Japan Chemical Industrial Company, of the Tokai Paper Materials Company, and of the Imperial Theatre; Director of the Oriental Steamship Company, the Narita Railway Company, the Tokyo Electric Light Company, the Koriyama Silk Spinning Company, the Dai-Nippon Beer Brewery Company, the Niitaka Sugar Refining Company, the Teikoku Hemp Manufacturing Company, and the Tokyo Rope Manufacturing Company; Auditor of the Japan Shoes Manufacturing Company, the Hokkaido Colonization Bank, the Ujikawa Electric Company, the Formosan Bank, etc. Born September, 1837, at Shibata in Niigata-ken, second son of Sennosuke Okura. Married Toku, elder daughter of Tome Mochida. Grew up under the parental roof, but when seventeen years of age lost his parents, and the next year came to Tokyo. Employed by a grocer, and after five years started business independently. At the time of the Restoration he sold arms and ammunition, from which he derived a large profit. Subsequently he imported Western arms. Later he founded a foreign tailor's shop—a pioneer in that business in Japan. In 1872 he travelled through Europe and America to study commerce and industry in the West, and opened a branch office in London, from which ever since he has operated an export and import business. In the Formosan Expedition of 1874 and the Civil War of 1877, he rendered great services to the Government by supplying provisions and other necessities to the Imperial forces. In 1880 he went to America in order to regain the market for Japanese tea there and to encourage its export, as our tea export to America was then decreasing owing to discreditable actions on the part of traders. In this mission he was successful. Again, in 1884, he travelled through Europe and America for commercial and industrial observation. On his return he established the Engineering Department of his firm, and was contractor to the Army in this line of work during the Japan-China and Russo-Japanese Wars. Baron Okura is one of the founders of the present Tokyo Chamber of Commerce, in which for many years he held the post of Vice-President. In 1888 he contributed a large sum of money toward the Coast Defence expenses and was granted the Court rank of Junior Fifth Grade. He made a donation of Yen 500,000 toward

the establishment of the Okura Commercial School and also rendered great financial aid in the inauguration of the Osaka and the Seoul Commercial Schools. Lately he has offered Yen 1,000,000 to the Government as a relief fund for poor people, following the example of His Majesty's recent gracious donation of the kind. He has been decorated with the Second Order of the Sacred Treasure in recognition of his meritorious service, both in the Japan-China and in the Russo-Japanese War. After the latter war he went to China to investigate business conditions. He founded the Okura Fine Arts Hall. On the occasion of the Coronation Ceremony of H. I. M. the Emperor, December, 1915, he was created Baron.

OLSEN, CAPTAIN C., well known in the Yokohama business community, and probably just as familiar a figure throughout the Far East, Captain C. Olsen is one of the interesting types of foreigners who have pioneered the mercantile marine and other interests of the Empire. The subject of this sketch, Canute Olsen, was born at Stavanger, Norway, June 21, 1851. He spent the early years of his life at sea in sailing ships, and first came to Japan in 1877. At that time Japan had practically no merchant marine, and foreign officers were badly wanted for the few ships that were running. The Mitsui Bishi Shipping Company offered Captain Olsen a position, and in 1879 he joined that company's service as second officer. He remained with the Mitsui Bishi Company until its amalgamation with the Kiodo Uenyu Steamship Co., and then transferred to the new company, afterwards so well known as the Nippon Yusen Kaisha, serving on their ships as Chief Officer. He became a captain in 1890. During the Sino-Japanese War of 1894-5, Captain Olsen served as master of a steamer engaged in transport work, etc., and for his distinguished services to Japan he was decorated by the Emperor Meiji with the Sixth Order of the Rising Sun. In 1899 Captain Olsen retired from the service of the Nippon Yusen Kaisha and paid a visit to Norway, after having been away from his birthplace for over thirty-two years. On his return to Japan he joined the Akazawa Copper Mining Company in 1902, and became Manager of the mine. He remained in his position until 1904, when the Europeans interested in the property had to sell out on account of lack of funds. The mine is now one of the richest in the country, having been properly developed under the name of the Hitachi Kozan. Captain Olsen then established his present business as a marine and general surveyor in Yokohama. He was appointed surveyor to the Bureau

Veritas of Paris, and after the beginning of the present war he took over the inspectorship of that institution, also becoming their agent in Yokohama. Captain Olsen established the Japan agency for the Norske Lloyd Fire and Marine Insurance Company of Christiania. He is also agent for the Bergens, Agders and Vidar Insurance Clubs of Norway. Captain Olsen is married to a Japanese lady and has one son. His office address is 167 Yamashita-cho, Yokohama, and private residence, 914 Daijingu-yama, Kitagata, Yokohama.

OOKA, IKUZO, M. H. R. for Yamaguchi-ken. Born June, 1856, in Yamaguchi-ken, eldest son of the late Iori Ooka of Yamaguchi-ken. Married Yoshi, second daughter of Matabei Yamamoto of Tokyo. Studied German at the Medical School in Nagasaki; studied law in the Law School of the Department of Justice; became a lawyer in 1880; appointed President of Kyoritsu College in 1882; joined the Progressive party the same year; elected member of Tokyo Prefectural Assembly in 1885; elected member of House of Representatives in 1890, 1892, 1894, 1898, 1902, 1903, 1907, and 1912; established the Kokumin Kyokai with the late Marquis Saigo and Viscount Shinagawa in 1892; proprietor of the *Chuo Shimbun*, 1893-1910; went to China with the late Prince Ito in 1898; made an inspection tour through Europe and America in 1899; on his return home established the *Seiyukawai* under the presidency of Prince Ito; elected Chairman of the Tokyo Municipal Council in 1905; President of the House of Representatives, 1911; appointed Minister of Education, March, 1913, but on the overthrow of the Yamamoto Cabinet, in consequence of the Naval Scandal, resigned the next month.

OSAKI, HIROYOSHI, member of the House of Representatives for Matsuyama City, besides being a well known young business man in Tokyo, is one of the vital factors in Japan's politics. He does not belong to any political party, and exercises a vigorous independence in his attitude on the big questions which confront the Japanese politician. His criticism of the Government is striking and his speeches on many important matters of policy have attracted Empire-wide notice. Mr. Osaki was born in Matsuyama City in July, 1878, the son of Hiromasa Osaki. He graduated in the political course of the Law College of the Tokyo Imperial University in 1902, and then entered the service of the Mitsui Bank. He was appointed Managing Director of the Chu-Nichi Jitsugyo Kabushiki Kaisha (Japan-China Industrial Development Company, Ltd.) in August, 1913. At the elections in

April, 1917, Mr. Osaki was returned to the House of Representatives for his native city.

OSAWA, SHOZO, Vice-President of the Japan Leather Company, President of the Japan Shoes Manufacturing Company. Born May, 1849, in Tokyo, third son of Ruemon Osawa, a Tokyo samurai. Married Moyo, elder daughter of Hirozo Shindo, a samurai of Chiba-ken.

OSHIMA, KEN-ICHI. Lieutenant-General, Minister of War since 1916. Born May, 1858, in Gifu-ken, eldest son of the late Keinoshin Oshima, a samurai of Gifu-ken. Married Isoyu, elder daughter of Yu Shimidzu, a samurai of Aichi-ken. Graduated from the Military Academy, 1881; prosecuted his military studies in Germany and France, 1890-1893; Sub-Lieutenant of Artillery, December, 1881; Lieutenant, May, 1885; Captain, December, 1889; Major, December, 1894; Lieutenant-Colonel, October, 1899; Colonel, December, 1902; Major-General, November, 1906; Lieutenant-General, August, 1913. Was Chief of Staff of the General Communications Department and later Chief of the Karafuto Delimitation Committee in the Russo-Japanese War. Vice-Chief of the General Staff Office, September, 1912; Vice-Minister, April, 1904; promoted to Minister of War, March, 1916. Decorated with the First Order of Merit and the Third Class of the Golden Kite.

OTANI, KAHEI, one of the largest taxpayers of Kanagawa-ken; tea, silk, and cocoon export merchant; Chairman of the Yokohama Chamber of Commerce; Chairman of the Central Chamber of the Tea Traders' Association; President of the Yokohama Seventy-fourth Bank, Limited, the Yokohama Savings Bank, the Japan Tea Manufacturing Company, and the Tokiwa Life Insurance Company; Director of the Tokyo Fire Insurance Company and the Yokohama Wire-Telegraphic Company; Auditor of the Teikoku Marine Transportation Fire Insurance Company, the Japan Hypothec Bank, and the Bank of Taiwan (Formosa). Born, 1844, in Mie-ken, fourth son of Ichibei Otani. Went to Yokohama in 1862 and engaged chiefly in the tea export business; in 1872 inaugurated a tea manufacturing company and greatly contributed to the improvement and development of the industry; in 1881 rendered a good service in the readjustment of the financial difficulties of the Seventy-fourth Bank; being elected its President, he placed the business of the bank on a sound basis; in 1884 organised the Yokohama Tea Merchants' Guild of which he became President; elected Chairman of the Central Association of the United Tea Merchants' Guilds, which post he still occupies; elected member

and afterwards Chairman of the Yokohama Municipal Council; President of the Yokohama Educational Society since 1893; organised the Japan Tea Manufacturing Company, becoming its President. Appointed Councillor of the Japanese Exhibits Business Bureau at the time of the Paris International Grand Exhibition in 1896. Elected President of the Yokohama Chamber of Commerce, the Yokohama Conscription Encouragement Society, and member of the Yokohama Harbour Investigation Committee. In 1898, when the United States Government decided to levy heavy duties on Japanese tea, he was elected, with the unanimous approval of the tea merchants in Japan, as their representative, to proceed to America and lay the case before President McKinley. The mission proving successful, the high tariff was abolished the following year. During his stay in America he also attended the International Commercial Congress held in Philadelphia, representing the Tokyo and Yokohama Chambers of Commerce, and submitted a proposition for the rapid construction of the direct submarine cable between Japan and America, across the Pacific Ocean. The proposal having been eventually adopted, the Pacific Commercial Cable Company was formed. He returned home the following year, after having made a tour through Europe. He was decorated with the Third Order of Merit in 1907. He was a member of the party invited by the United Chambers of Commerce of the Pacific Coast in 1909. In 1910 he travelled in China and Korea.

SAKA, NAKASUKE, Third Order of Merit, Governor of Niigata-ken. Born January 29, 1879, in Yamaguchi-ken, first son of the late Chusuke Saka, a samurai of Yamaguchi-ken. Married Tatsuo, first daughter of Kuwasuke Nakao, of the same prefecture. Studied law, and passed the Higher Civil Service Examination in 1885. Appointed a subordinate official in the Home Department; Probationary Public Auditor; Secretary of the Board of Auditors; Private Secretary to the Home Minister, June, 1901; Secretary to Aichi-ken, November, 1904; Commissioner to Kanagawa-ken, July, 1906; then Governor of Ibaraki-ken in October, 1908; Governor of Ishikawa-ken, December 1912, April, 1914; then transferred to present post.

SATO, AIMARO, Japanese Ambassador to Washington, 1916 and 1917. Born March, 1857, in Aomori-ken, second son of Itsuro Yamanaka, a samurai of Aomori, and adopted by Kiyoei Sato. Married Yuki, first daughter of Tsunao Tsushima, a samurai of Aomori-ken. Graduated from an American university, 1881; appointed clerk in the

Foreign Office the same year; Legation Secretary unattached, 1886, and Chief of the Telegraph Section; Secretary to the Legation at Washington, 1888; transferred to London, 1891; recalled home and appointed Chief of Telegraph and Translation Section, 1893; First Class Secretary to the Legation at Paris, 1896, and at Berlin, 1898; Minister Resident, 1900; accredited to Mexico; recalled home in 1902. He had charge of the special correspondence business during the Russo-Japanese War, and was in the suite of the Peace Plenipotentiary at Portsmouth, 1905; Envoy Extraordinary and Minister Plenipotentiary to Holland, 1906; attended the Second International Peace Conference held at The Hague, 1907; attended the International Opium Conference at The Hague, October, 1911; Ambassador to Austria-Hungary, August, 1914. Decorated with the First Order of the Sacred Treasure and with many foreign orders.

SATO, TETSUTARO, Vice-Admiral, President of the Naval College since December, 1916. Born July 17, 1866, in Yamagata-ken, eldest son of the late Yujiro Hiramuki. Married Aya, sister of Viscount Chosei Ogasawara. Graduated from the Naval Academy, 1887. Appointed Second Sub-Lieutenant, June, 1893, and to the present rank of Rear-Admiral in December, 1912. Staff to Standing Squadron and Second Squadron, Captain of *Aso*, a warship of First Squadron. Sent twice to Europe and America. Took part in the Sino-Japanese and the Russo-Japanese Wars. Decorated with the Second Order of the Sacred Treasure and the Third Class of the Golden Kite.

SHIMAMURA, HAYAO, Baron (created July 14, 1916), Vice-Admiral, Chief of the Naval General Staff since April, 1914. Born September, 1858, in Kochi, second son of the late Sagohei Shimamura, a samurai of Kochi. Married Kudao, first daughter of Masahide Kondo of Kochi. Graduated from the Naval Cadet School, 1880; studied in England and Italy, 1888-1890; Second Sub-Lieutenant, November, 1883; Lieutenant, July, 1886; Second Commander, December, 1894. Was Staff Officer on board the flagship *Matsushima* in the Japan-China War, being slightly wounded in the left leg in the Battle of the Yellow Sea. Commander soon after, and attached to the Naval Department; Professor at the Naval Staff College, 1896, and in the same year attached to the Japanese Legation at Rome; Captain, 1899. Was Commander of the *Suma* and Chief of Staff to the Standing Squadron in the Boxer Trouble, 1900; attached to the Naval Department, and also professor at the college; Rear-Admiral, 1904. Took

part in the Russo-Japanese War as Commander of the Second and Fourth Squadrons; was Chief of Staff to Admiral Togo; Director of the Naval Cadet College, 1906; Vice-Admiral, and President of the Naval Staff College, 1908; Commander-in-Chief of the Second Squadron, December, 1909; Com-

1904, he was ordered by the Department of Finance and the Formosan Government-General, to take charge of the investigation of the sugar industry. He was appointed Expert to the Formosan Sugar Affairs Bureau, and when the Meiji Sugar Refining Company was inaugurated in 1906, he

House of Peers. Born July, 1854, in Sendai, first son of Koretada Takahashi, a samurai of Sendai clan. Married Shina, first daughter of Kinzaemon Harada, a samurai of Kago-shima. Studied English at Yokohama, and was sent to America for study in 1867. Received the appointment of Assistant Professor of the Kaisei-gakko; then teacher of English in a clan school in Karatsu. Principal of the Osaka English School in 1875; an official of Department of Agriculture and Commerce in 1881, and promoted to the presidency of the Patent Bureau. This post he resigned in 1890 and went to Peru to exploit a silver mine, which was being defrauded by a German swindler. In April, 1891, he returned home and took a post in the Bank of Japan. He was promoted to be a Director, having charge of the western section of the bank, in 1893. In 1895 he entered the Yokohama Specie Bank as its Manager, became Director in 1896, its Vice-President in 1897, and then Vice-President of the Bank of Japan and President of the Yokohama Specie Bank in 1906, as an additional post. He was Financial Agent for raising foreign loans in England and America, and visited those countries twice on that important mission, 1904-1906. President of the Bank of Japan, June, 1911. Accepted the portfolio of Finance under the Yamamoto Cabinet, February, 1913. He resigned in April, 1914, and is now one of the leaders of the Seiyukai party. He has been decorated with the First Order of Merit.

TAKARABE, TAKESHI, Vice-Admiral, Member of the Board of Admirals. Born, March, 1867, in Miyazaki-ken, second son of Tane-aki Takarabe, a samurai of Miyazaki-ken. Married Irie, first daughter of Admiral Count Gombei Yamamoto. Graduated from the Naval Staff College, 1892, and studied in England. Appointed Commander, September, 1902; Captain, in January, 1905; Rear-Admiral, in December, 1909; Vice-Admiral in December, 1913. Before he was appointed to his present post he held successively the posts of commander of the battleship *Fuji*, Chief of Staff of the First Squadron, Director of the Temporary Naval Construction Department, Vice-Minister of the Navy, and member of the Naval Flag Officers' Conference. He was Commander of the Port Arthur Fort in 1915. Has held his present post since December, 1916. Took part in both the Japan-China War and the Russo-Japanese War. Has been decorated with the Third Class of the Golden Kite, the Second Order of Merit with the Cordon of the Sacred Treasure, and many foreign orders.

TAKATA, SHINZO, Proprietor of the well-known Takata Shokai, machine exporters. Born, February, 1852, in Aikawa, Sado, first



A CHERRY BLOSSOM SCENE

mander-in-Chief of the Saseho Naval Station, 1911; then present post. Promoted to the rank of Vice-Admiral, August, 1915. He attended the Hague Peace Conference in 1907. Was decorated with the Second Class of the Golden Kite and the Second Order of the Double Rayed Rising Sun for his services in the Russo-Japanese War.

SOMA, HANJI, President of the Meiji Sugar Refining Company. Born July, 1869, in Tokyo, younger brother of Yojiro Tanaka, a samurai of Aichi-ken, and adopted into the Soma family. Married Kiyoshi, elder daughter of his adopted father. Graduated from the Tokyo Higher Technical College in 1896. On graduation he was appointed Assistant Professor of his *alma mater*. Proceeded to Germany by Government order in 1900, and studied various processes related to sugar refining at the Berlin Higher Technical School and the Brunswick Higher Technical School. In 1901 he went to the United States and continued his studies in matters pertaining to sugar at the University of Michigan, from which he was graduated with the degree of Master of Science in April, 1903. In the following June he returned to Japan and was appointed Professor by his *alma mater*. In December,

entered the firm as its Managing Director. He is also adviser to the Toroku Sugar Refining Company.

SUDA, TOSHINOBU, Kogakuhakushi, Vice-President of the Nippon Yusen Kaisha. Born February, 1856, in Miyazaki, third son of Moshimasa Suda, a samurai of Miyazaki. Married Aki, first daughter of Morikuni Takarabe, a samurai of Miyazaki, in 1886. Graduated from the Koku-Daigaku (now the Engineering College of the Tokyo Imperial University), in 1881. On his graduation he entered the Communications Department as Expert, afterwards becoming Expert to the Kawasaki Dockyard Company. He joined the Nippon Yusen Kaisha and was sent to England by the company, 1887-1892. On his return to Japan, he was transferred to the Yokohama branch, and in 1898 to the head office in Tokyo. He received the degree of Kogakuhakushi in 1899. He served as Managing Director until November, 1915, when he was promoted to his present post. He has been decorated with the Fourth Order of Merit in recognition of his services during the Russo-Japanese War.

TAKAHASHI, KOREKIYO, Baron (created 1907), ex-Minister of Finance, Member of

son of Rokuro Takata. Married Tami, elder sister of Hidematsu Ikeda, of Tokyo. Became a student interpreter at the Ebisu Custom House in 1869. Ten years later he came up to Tokyo to seek his fortune, and first became clerk to a merchant, Tsukiji, under whom he gained experience in foreign trade. In 1881 he took over the business, which by his untiring perseverance and extreme prudence, has been carried to its present state of prosperity. He made a tour of observation in Europe and America during 1887, and on his return home founded the Takata Shokai. He has been decorated with the Third Order of Merit for services during the Russo-Japanese War.

TAKEDA, KYOSAKU, Proprietor of the Takeda Mining Office, President of the Kano Mining Company, Limited, and the Japan Mining Company, Limited. Born in 1867 in Yamaguchi-ken, third son of Shozo Isobe, adopted by Toyo Takeda. Married Ichi, elder daughter of Shikataro Fujita of Osaka. Graduated in Mining and Metallurgy at the Tokyo Imperial University in 1893. Entered the Poitagumi and became Chief Expert of the Omori and the Kosaka Mines; then present posts.

TAKESHITA, ISAMU, Rear-Admiral, Staff of Naval General Staff Office, and Instructor at the Naval College. Born December 4, 1869, in Kagoshima-ken, second son of Sadayoshi Yamamoto, a samurai of the same prefecture. Married Tei, adopted sister of Baron Sameshima. Graduated from the Naval Academy. Appointed Second Sub-Lieutenant of Navy in July, 1890; Commander, 1907; Captain, 1911; Rear-Admiral, June, 1913. Held successively the posts of Staff on the Standing Squadron, Naval *Attaché* to the Japanese Legation at Washington, Chief of Staff on the Second Squadron; Captain of the *Suma*, *Kasuga*, and *Izumo* (warships); Staff of Naval General Staff Office; Captain of *Tsukuba* and *Shikishima* (warships); Chief of Staff on the First Squadron; then the present post. Went to the Peace Conference at Portsmouth as Naval Delegate, in 1905. Later he was despatched to China for inspection of military affairs. He has been decorated with the Third Order of Merit.

TERAUCHI, SEIKI, Count (created 1910), Field-Marshal, Premier of the Cabinet since October, 1916. Born February 5, 1852, in Yamaguchi-ken, second son of Shobei Utada, a samurai. Married Taki, elder daughter of Sadao Hasegawa of Shizuoka-ken. Adopted by Kanemon Terauchi. Studied military science in France. Was appointed Sub-Lieutenant in August, 1871; Lieutenant in November, 1871; Captain in 1872; Major in 1879; Lieutenant-Colonel and Colonel both

in 1887; Major-General in 1892; Lieutenant-General in 1898; General in 1902; Field-Marshal, June, 1916, Military *Attaché* to the legation at Paris, 1882-1885; Adjutant and Private Secretary to the Minister of War in 1886; Director of the Military Academy in 1887; Chief of Staff of the First Army Division in 1891; Director of the First Bureau of the General Staff Office in 1892; sent abroad in 1896; Commander of the Third Army Brigade in 1896; Superintendent of Military Education in 1898; Vice-Chief of the General Staff in 1900; Minister of War in 1902; Resident-General of Korea, 1910-1916. He took part in the Saigo Rebellion as head of a company of the Imperial forces, and was wounded in the right arm in the battle of Tawarazaka. In the China-Japan War he was Supervisor of the transport service. He achieved distinction in the Russo-Japanese War as Minister of War, which post he held until August, 1911. He was nominated Viscount and invested with the First Order of Paulownia and the First Class of the Golden Kite as a war reward. He has been promoted Count in recognition of his services in connection with the annexation of Korea.

TOKONAMI, TAKEJIRO, member of the House of Representatives since 1914 for the Kagoshima Prefecture, has had a distinguished career in the public and political life of Japan. He was born in December, 1866, in Kagoshima, the first son of the late Seieis Tokonami, a samurai of Kagoshima, and married Kiyoko, first daughter of Tsunenori Hashimoto, a samurai of the same prefecture. Mr. Tokonami graduated from the Law College of the Tokyo Imperial University in 1890. After serving as Secretary of the Finance Department, Secretary of Yamagata and Niigata Prefectures, Governor of Tokushima and Akita Prefectures, and holding other public offices, Mr. Tokonami was transferred as Vice-Minister in the Home Office in 1906. He made an official tour of investigation in Europe and America in 1908. Mr. Tokonami filled the highly important position of President of the Imperial Government Railways from February, 1913, to April, 1914. He sought election to Parliament in 1914 for his native prefecture, and was successful in the interests of the Seiyukai, the Constitutionalist party. At the elections of April, 1917, he was again returned and was appointed Director of his party. Mr. Tokonami's valuable services to the Empire have been recognised by His Majesty the Emperor, who has conferred upon him the Second Class Order of the Sacred Treasure, and the Second Class Order of the Rising Sun. As an author Mr. Tokonami is known widely for his work,

"Glimpses of Europe and America." His address is 14 Mikawadai-machi, Azabu, Tokyo.

TOKUGAWA, IYESATO, Prince (created 1884), Lord-in-Waiting in the Jako Hall, President of the House of Peers, and President of the Peers Club. Born, July, 1863, at Tokyo, third son of Yoshiyori Tokugawa. Married Hiroko, daughter of the late Prince Tadafusa Konoe. Studied in England from 1877 to 1882. His father was of the Tayasu branch of the Tokugawa family. The Prince was adopted as heir in 1868, by the last of the shoguns. After the Restoration he became Governor of Shizuoka clan. On returning from abroad he was appointed Lord-in-Waiting in the Jako Hall. M. H. P. since 1900. President of the House of Peers since December, 1903. When the Yamamoto Cabinet resigned in 1914, H. I. M. the Emperor ordered him to form the cabinet, but he did not accept. He went abroad on a tour of inquiry in 1910. He is President of the Peers Club and the Tokyo Charitable Society. His *nom de plume* is "Seigaku."

TSUNETO, NORITAKA, Nogakuhakushi, President of the Rasa Island Phosphate Company, Limited. Born, January, 1857, at Nakatsu, Oita-ken, son of Hanshiro Tsuneto. Married Sumi, third daughter of Yuzuru Katsuda. He received his education at the Osaka English School and the Komaba Agricultural School, from which latter institution he was graduated in 1883. He was appointed Expert to the Department of Agriculture and Commerce; Chief of the Soil Section of the Geological Laboratory; Director of the Fertilizer Research Laboratory; Professor of the Morioka Higher Agricultural and Forestry School; Lecturer at the Kagoshima Higher Agricultural and Forestry School; Expert to the Formosan Government. He represented Japan at the International Geological Conference held in Russia in 1896. In 1901 he was sent abroad on business connected with fertilizers. He retired from official service in 1904. His publications are as follows: "Nippon Dojo Ron" (Essay on Japanese Soil); "Minami Nippon no Fugen" (Resources of Southern Japan), and "Statistics of the Products from Japanese Soil." He lectures on Practical Fertilization.

TSUNODA, SHIMPEI (*nom de plume* "Chikurei"), President of the Tokyo Chamber of Commerce, Member of the Tokyo City Assembly, Director of the Tokyo Stock Exchange, and Director of the Shueisha Printing Company. Born, June, 1857, in Shizuoka-ken, second son of Hikoemon Tsunoda of Shizuoka-ken. Married Ei, younger sister of Chubei Ikeda, of the same prefecture. Studied law, and passed the examination for the Bar in 1880, after which he practised as a lawyer. He joined the

Kaishinto (now Doshikai) in 1884. He was chosen Chairman of the Tokyo Lawyers Association in 1898; elected M. H. R. several times since 1892; appointed to the Street Reform Bureau in Tokyo City and rendered good service toward the improvement of streets and avenues. He has been decorated with the Fourth Order of the Rising Sun in connection with the Russo-Japanese War.

UEHARA, YUSAKU, Baron (created 1907), Lieutenant-General, Chief of the Military General Staff since December, 1915, High Military Councillor. Born, November, 1856, in Miyazaki-ken, second son of Seizan Tatsuoaka, a Miyazaki samurai, and adopted by Naozane Uehara. Married Maki, daughter of the late General Marquis Nozu. Studied military tactics in France, 1881; appointed Sub-Lieutenant of Engineers, December, 1879; Lieutenant, September, 1882; Captain, June, 1885; Major, May, 1890; Lieutenant-Colonel, September, 1894; Colonel, October, 1897; Major-General, July, 1900; Lieutenant-General, July, 1906. Occupied successively the posts of Instructor of the Military Academy, Chief of the Fifth Section of the General Staff Office, Inspector-General of Military Education, Superintendent of Engineers, etc. He took part in the Japan-China War as Staff Officer to the First Army and was Chief of Staff to the Fourth Army under General Nozu during the Russo-Japanese War. He was created Baron and invested with the First Order of the Rising Sun and the Second Class of the Golden Kite for his services in war. He was Commander of the Seventh Army Division and of the Fourteenth Army Division until April, 1902. When he was Minister of War under the Saionji Cabinet he proposed to increase the army by two divisions, but Premier Saionji not concurring in this opinion, the Cabinet resigned in December, 1912. He was appointed Commander of the Third Army Division, Inspector-General of Military Education (1914-December, 1915), and then present post. He has been decorated with the Grand Cordon of the Rising Sun and with the First Order of the Sacred Treasure (October, 1915).

WADA, TOYOJI, Managing Director of the Fujigasu Spinning Company, Limited, and Special Member of the Tokyo Chamber of Commerce. Born, November, 1861, in Oita-ken, eldest son of the late Kunroku Wada, a samurai. Married Orie, sister of Chijuro Kawabata, an Oita samurai. Graduated from the Keio University in 1885, and pursued his studies in America. After returning to Japan he was employed by the Nippon Yusen Kaisha (Japan Mail Steam-

ship Company). Afterwards he accepted a position in the Mitsui Bank, being appointed Sub-Manager of the Yokohama branch. At the time of the readjustment of the Kanegafuchi Spinning Company, he was elected its Manager. Some time after this he transferred to the Fuji Spinning Company as Managing Director, in which post he had ample opportunities for displaying his rare business abilities. He is one of the best informed business men in Japanese spinning circles.

YABE, REN, Counsellor at Law and Patent Attorney, is a prominent member of the legal profession in Tokyo. He was born September, 1872, in Okayama Prefecture, and is the adopted son of Osamu Yabe. He was graduated from the Law College of Tokyo Imperial University in July, 1897, and passed the Higher Civil Service Examination in November of the same year. Mr. Yabe was appointed Comptroller of the Patent Bureau, and in addition was made Councillor to the Department of Agriculture and Commerce in June, 1899. In January, 1901, he was sent on official business to France and India. He became Secretary of the Department of Commerce in February, 1903, but the same year he resigned his official posts and opened a law and patent office in Tokyo, where he has been practising ever since. Mr. Yabe has built up a large practice and his reputation, based on his extensive knowledge of general law and the patent systems of Japan and foreign countries, is of the very highest. His office address is Mitsubishi Buildings, 1 Yayasuecho, Kojimachi-ku, Tokyo.

YAMADA, ATSUSHI, Managing Director of the Nippon Cotton Company, Limited. Born July 9, 1878, in Osaka, son of Shin Yamada, miner. Married Sayo-ko, August, 1906. Studied at the First High School. Entered the Nippon Cotton Company in 1897, and served in its New York branch, July, 1901; in Bombay, 1907-1910; again in New York in 1910. He is a member of the New York Cotton Exchange and of the New Orleans Cotton Exchange.

YAMADA, MASAKUNI, Managing Director of the Tokyo Rope Manufacturing Company, Limited, and Director of the Far Eastern Rubber Company. Born, May, 1848, in Tokyo, third son of Chugoro Yamada, a samurai. Married Shu, elder daughter of Rihei Okada, also a Tokyo samurai. Succeeded his brother, Tamotsu Yamada, in 1870. He was in the official service for a long period, and afterward entered business.

YAMAGATA, ARITOMO, Prince (created 1906), Field-Marshal, Supreme Military Councillor, President of the Privy Council, holder of the Grand Cordon and the First Class of the

Golden Kite. Born April 22, 1838, at Hagi, in Yamaguchi-ken, eldest son of the late Saburo Yamagata, a samurai of Choshu clan. Was well known by his early name, Kyosuke. Educated by the late Shoin Yoshida. He fought against the shogunate army before the Restoration, when the shogunate army attacked Choshu clan in 1866. He was Chief of Staff of the Echigo Army of the Imperial forces, and took the castle of Nagaoka, and marching farther north subjugated entire districts in the northeastern provinces in 1868. He was despatched to Europe for observation and study, 1869-1870. Vice-Minister of War, 1871; Lieutenant-General and Minister of War, 1872; Chief of Staff of the Imperial Army during the Civil War, 1877; Chief of the General Staff, 1878; Minister of Home Affairs, 1882; created Count, 1884; member of the Coast Defence Committee, 1885; again Minister of War, 1885; Minister of Agriculture and Commerce (in addition), 1886; Chief of the Fortress Construction Department, 1886; Chairman of the Local Administration Investigation Committee, 1887; ordered to proceed to Europe, 1888; Prime Minister and (in addition) Minister of Home Affairs, 1889; Minister of Justice, 1892; President of the Privy Council, 1893; commanded the First Army Corps in the war with China but returned home on account of ill health; Minister of War for the third time, 1895. He attended the coronation ceremony of Czar Nicholas and brought home the Yamagata-Lobanoff Convention in regard to Korea, 1896. Was created Marquis and Field-Marshal the same year, and Prime Minister again in 1898. In 1900 he was granted the Grand Cordon. He was Chief of the General Staff during the Russo-Japanese War, after the war being raised to the rank of Prince and decorated with the First Class of the Golden Kite and the Grand Order of the Chrysanthemum in 1907. He was appointed President of the Privy Council in 1909.

YAMAOKA, JUNTARO, Vice-President of the Osaka Shosen Kwaisha (Osaka Mercantile Steamship Company, Limited), Chairman of the Board of Directors of the Osaka Tekkosho (Osaka Iron Works, Limited), and a member of the Osaka Chamber of Commerce. Born, September, 1866, in Kanazawa, eldest son of Yoshiaki Yamaoka. Married Ichi, elder daughter of Yasukichi Taguchi. Served with the Department of Communications from 1892 to 1898, and entered the Osaka Shosen Kwaisha in the latter year. He was Assistant Secretary until 1899, Secretary from 1899 until 1907, Treasurer during the same period, Manager of the Home Services Department (1907-1908), General Manager (1908-1911), Managing Director (1911-1914), and Vice-Presi-

dent, 1914. He entered the Osaka Tekkosho in 1914, President in 1914-1915, and Chairman of the Board of Directors, 1915. Elected a member of the Osaka Chamber of Commerce in 1913.

YASHIRO, ROKURO, Baron (created July, 1916), Vice-Admiral, Commander of the Second Squadron since December 13, 1915. Born, January, 1860, in Aichi-ken, second son of Shoshichi Matsuyama, adopted by Ippei Yashiro, in 1869. Married So, elder daughter of Hosho Ono, a samurai of Shizuoka-ken. Educated at the Naval Academy. Third Sub-Lieutenant, June, 1885; Commander, December, 1897; Captain, October, 1901; Rear-Admiral, December, 1907; Vice-Admiral, 1911. Was successively Adjutant to the Naval Academy, member of the Naval General Staff, Section Commander of the *Yashima*, *attaché* to the legation at St. Petersburg, Vice-Commander of the *Yashima*, Commander of the *Miyako* and the *Asama*, *attaché* to the legation (afterwards embassy) at Berlin, Commander of

Yokosuka Reserve Fleet Squadron and of the First Squadron, *attaché* to the Kure Naval Station. He took part in the Russo-Japanese War as Commander of the *Yashima*, belonging to the Second Squadron, under Vice-Admiral Uryu. He was Commander of Maizuru Naval Station, September, 1916. When the Okuma Cabinet was formed in May, 1914, he entered it to hold the portfolio of the Navy, which he resigned in August, 1915. He was then appointed to his present post. He has been decorated with the Third Order of the Rising Sun, the Third Order of the Sacred Treasure, and the Third Class of the Golden Kite.

YONEI, GENJIRO, Proprietor of Yonei Shoten, President of the Meiji Rubber Manufacturing Company, Managing Director of the Kirin Beer Brewery Company, Limited, and President of the Meidi-ya. Born, September, 1861, in Okayama-ken, second son of Nakabei Yonei. Married Tsurumatsu, also a native of Okayama-ken. Graduated from the Keio University in 1887. After graduation he

entered the firm of Meidi-ya, grocer and spirit merchant, the proprietor being the late Mr. H. Isono, his relative. During the time he was with Meidi-ya, he inaugurated, in partnership with Mr. H. Isono, a separate import and export business under the firm name of Isono Shokwai, dealing in machinery, steel and iron materials, and sundries. On the death of Mr. Isono in 1897, Mr. Yonei took the management of the Isono Showkai into his own hands, and it is now known as Yonei Shoten. In the following year he started the Meiji Rubber Manufacturing Company, of which he became President. When Meidi-ya was changed into a partnership in 1903, he was elected its representative member, and again when the partnership was transformed into a joint-stock firm, he became its President. In 1906 he purchased the Kirin Beer Brewery Company, which was then owned by foreigners, and became its President also, the company now brewing a million *koku* of beer annually. (See page 569 of this volume for further details.)



FINAL NOTE

IN the compilation of a work of this encyclopedic character it is highly necessary to have the assistance of valued contributors. As a perusal of the book will show, this kind of aid has been generously given, and we have also received gratifying help from others who, by virtue of their prominent positions, were able to furnish absolutely up-to-date data.

First and foremost, we have to thank Mr. Gi Nakamura, Chief of the Bureau of Commercial Affairs, and Mr. Buyei Nakano, late President of the Tokyo Chamber of Commerce, for the excellent aid rendered by them in the early stages of this important compilation. Then, again, our thanks are due to Mr. Shiro Ikegami, Mayor of Osaka; Mr. Jusajiro Kashima, Mayor of Kobé; Mr. Kotetsu Hamaoka, President of the

merce, and Mr. Kahei Yokohama Chamber of Commerce, for the facilities afforded by them to study industrial aspects of their respective cities.

Finally, we have to express our obligations to the contributors who furnished us with the special articles, which are such a feature of this comprehensive publication, and which carry the name of the contributor in Japan," by Mr. Robert Young, Proprietor of the *Japan Chronicle*; "The Silk Industry of Japan," by Mr. Akira Shito, Director of the Imperial Japanese Silk Condition-House; "Tea," by Mr. Charles E. Atwood, Vice-Company, Chicago; "The Progress of Medicine in Japan," by Professor S. Kitasato, M. D., F. R. S., London; "The Diplomacy of Japan," by Mr. D. J. Evans, Managing Editor of the *Japan Chronicle*; "The



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Future of Japan," by Hon. Y. Takegoshi, ex-Member of the House of Representatives; "Constitution and Law of Japan," by Dr. J. E. de Becker, LL. B., D. C. L.; "Japanese Arts of Self-Defence," by E. J. Harrison, F. R. G. S.; "Japan as a Tourist Land," by Mr. W. B. Mason, Joint Author of "Murray's Handbook to Japan" and Corresponding Member for Japan of the Royal Scottish Geographical Society; "The Ainu," by the Venerable Archdeacon John Batchelor; "Petroleum," or "The History of Oil in Japan," by Mr. A. P. Scott, Managing Director of the Rising Sun Petroleum Company, Limited; "The Rice Industry," by Professor Shosuke Sato, of Tohoku Imperial University; "The Patent System," by Mr. Morio Nakamatsu, ex-Director of the Imperial Japanese Patent Office; "Japan's Button Trade," by Mr. Emile Ott, of Messrs. Israel & Oppenheimer, Ltd., Kobé, and "A Short History of Coinage in Japan," by Dr. Yoshimasa Koga, F. C. S., Chief Assayer at the Imperial Japanese Mint, Osaka.

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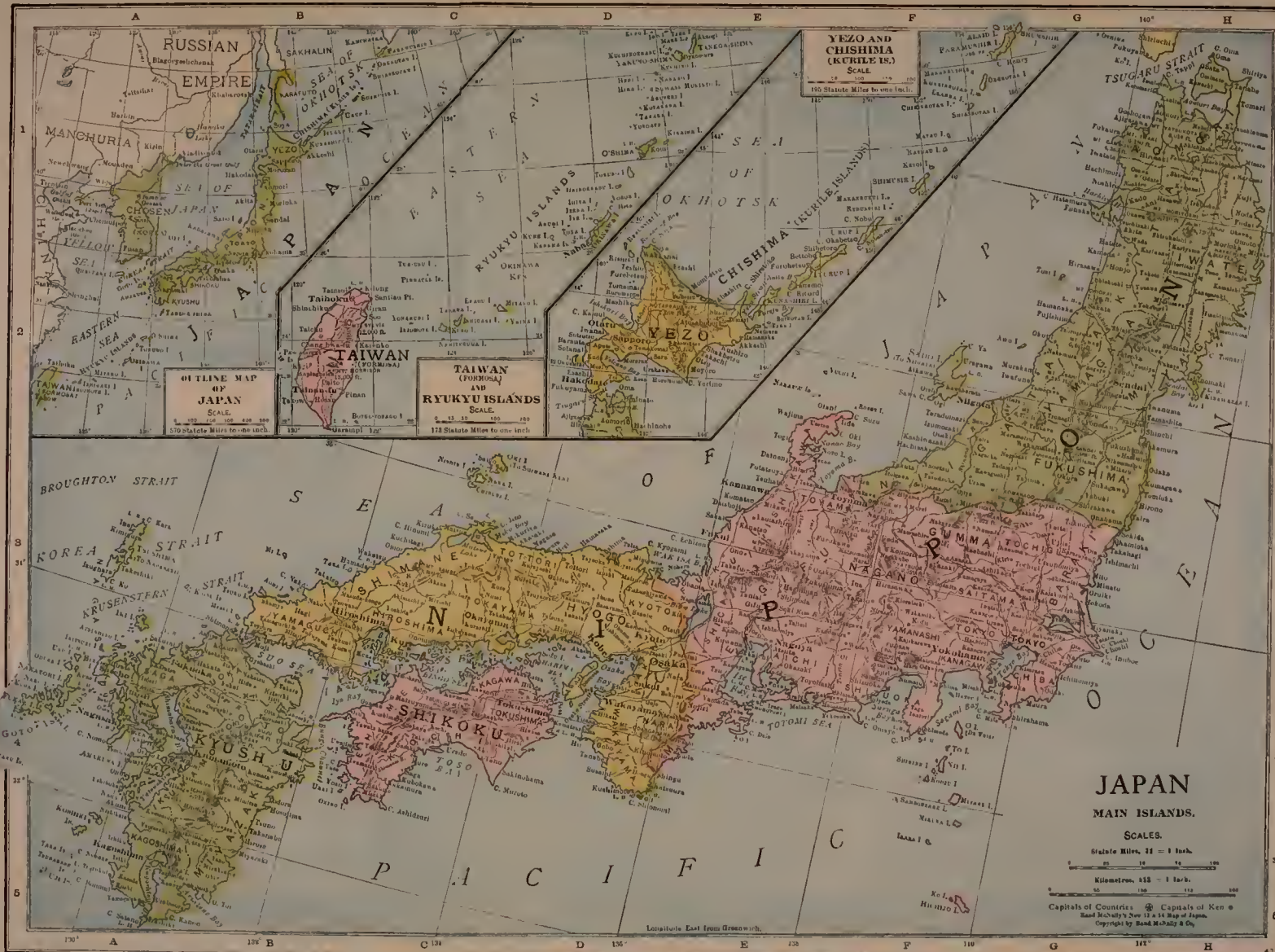
7
3
9
6
14

99

11
.80

191

587
741
638



YEZO AND CHISHIMA (KURILE IS.)
SCALE
150 Statute Miles to one inch.
110 120 130 140

OUTLINE MAP OF JAPAN
SCALE
500 1000 1500 2000
270 Statute Miles to one inch.

TAIWAN (FORMOSA) AND RYUKYU ISLANDS
SCALE
50 100 150 200
175 Statute Miles to one inch.

JAPAN

MAIN ISLANDS.

SCALES.

Statute Miles, 11 = 1 Inch.

Kilometres, 115 = 1 Inch.

Capitals of Countries Capitals of Ken

Based on the New 12 & 14 Map of Japan.

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Longitude East from Greenwich.



NANKO TEMPLE, KOBÉ

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